

HOLNICOTE,
TAUNTON.

Oct 11. 81.

My dear Dr. Cox Gray

I have received
today your kind &
welcome letter.

I shall be delighted
to receive you both on
Saturday the 22^d. and
am much obliged to
you for finding time

to visit us.

I trust - we

shall have fine
weather. If there is
any one you specially wish
to see, I hope you will
take me to before lunch.

I am glad to hear of
your health & hope
you will be well
soon.

I am returning home

tomorrow.

Sir Henry Acland

Dear Dr Gray

Very faithfully

W. H. Acland

University Museum, Oxford,
Department of Medicine and Public Health.

Oct 24. 1881

My dear Dr Gray,

I cannot let the
Book go forth without
a line of grateful thanks
for all your kindness, and
patience - not to say also
your instruction.

The time you have

now - to be full war, &
fear, on account with
difficulty from some last
days in England, and
I liked some goodness
of English execution. But
I hope rather not for
Gray now possibly will
have been the worse, and

that you will reach home
soon in fine weather to
accompany me on the
way home.

Please give my respects
to Professor Williamson,
and with 3 kindest-
wishes to his family
& to,

I think there is a certain
earnestness & originality
about the man
he published annually
besides what I showed
a report of an associa-
tion for Agricultural
Research - he is giving
great attention to grapes
His headquarters I believe
are in Aberdeen over
there an experimental
farm besides where
he is doing various
interesting things pro-
pably to grow

KILLERTON,
EXETER.

July 13/89

My Dear Professor Gray
I intend very little
book of controversy
on my table, I am
much flattered by
your kindness in wish-
ing to let it follow
you.
You will please under-
stand that I write for
no love of controversy

W

Ms. A. 1. 1
H. 1. 1. 1

or pictures in & Scientific
Knowledge - but I thought
harm were being done
by the Sir M James
you was taking,
specially as he had
provoked rather the
angry of capable men
who were doing good
work.

I also caught at the
opportunity to allow
him the same which

sluggish & sceptical
minds of my practi-
cal neighbours to
the importance of
sound experiments
In this speculation
I think you will be
that I have not been
unsuccessful as this
year's journal shows.
I think which you are
in Scotland it might be
worth your while to
learn a little more
about Jamieson's work

KILLERTON,
EXETER.

without feeding cattle
He has one point
on which I think
there is truth that
the mechanical
treatment of soil is
more important
for fertility than
chemical compo-
sition

I thank you very

valued very further
prints about which
is doing in America
on Agriculture Rep
we could reprint
for the instruction
of the Old Country
Hann at Berlin
in N. Zealand also
who is on the Legation

two Cornhill &
then connections
may excuse the
way & story
they seem to
present my com-
pliments & desires
I say - your own
given in great
pleasures

Yr truly
W. H. W.

Checks at the end
must to all church
men be very satis-
factory
you with double
and Prof Buckley in
the new No of the XIXth
Century, & perhaps if you
have noticed ^{Oct 29} or
view in the Spectator
of Rev. Mr. Wilson's Essay
you will be glad
to look at it

Sir Thos Gelant
KILLERTON,
EXETER. Nov 1/87

Dear Professor Gray
your kind remi-
nisance of your visit
here (I wish not had
been longer) is very
gratifying
But I had already
received a copy
of your Science &
Religion manuscript

America

The copy which
has come to day
has I see subscribed
the name of my
brother. (though not
exactly) his name
is Henry Wentworth
Arthur. I believe his
family sometimes

add dyke.

I have been known
mending the book
of Bishops & Clergy
& Laymen.

It appears to me
for the most com-
plete & well balanced
Statement of the
question, & the re-
ference to the two

Learn & Religion
by my brother
I wish papers
on. If it does
not go to waste
the duplicate copy
shall be well
circulated.

With much thanks
I am your very true
Obedient

I write to you
thinking you were
still in London,
I wrote to my
brother asking
at your letter I
my minister
I wish to do
my brother
may I so far

Genl Mr. Buxton
on your kind note
as to add that ~~any~~
~~the~~ titles of any
American publica-
tions on Agriculture
Spirituality on the
practical bearing
of Scientific know-
ledge would be
most welcome as
a contribution to
our West of England
journal.

KILLERTON,
EXETER.

I am hoping to
go on hearing
from you Boston
but I have been
very much occu-
pied lately

Unless I hear from
you that you have
already sent
a copy of your

Dr. Adair



Office of CORRESPONDING SECRETARY

The North American Bee-Keeper's Society.

Hawesville, Ky. January 31 1873.

Prof. Asa Gray

Dear Sir. At the meeting of the North American Bee Keepers society at Indianapolis in December, the question was asked, "Is there such a thing as honey?" and also, "What is honey?" Some very odd if not original answers were elicited. (I send you a copy of the American Bee Journal containing the Transactions.)

My object in writing to you is to get some information that I do not know where else I can find. And if it would not be taxing you too heavily I would like to have you write a short article on the elaboration of sugar (sucrose) not only as it appears in the nectararies of the flowers but in the sap and fiber of plants, as we know it exudes from the leaves and young wood of the Lime (*Tilia*) and other trees, and is secreted in the cells of the sugar-cane, and



THE First National Society of Bee-Keepers was organized at Indianapolis, Ind., in December, 1870, under the name of North American Bee-Keeper's Society—Rev. L. L. Langstroth, President—with a representation from fourteen States and Territories.

In February, 1871, a rival Society met at Cincinnati, Ohio, of which Mr. Langstroth was also elected President. It had about the same representation, and took the name of American Bee-Keeper's Association.

On the 6th day of December, 1871, both Associations met at Cleveland, O., formed a union under the name of "The North American Bee-Keeper's Society," and elected Mr. M. Quinby, of New York, Pres.

The Second Annual Meeting of the Society was held at Indianapolis, Ind., on the 4th, 5th, and 6th days of December, 1872. Rev. W. F. Clarke, of Ontario, Canada, was elected President; Rev. H. A. King, of New York, Secretary; D. L. Adair, of Kentucky, Corresponding Secretary; Hon. M. L. Dunlap, of Illinois, Treasurer, with Vice Presidents from 26 States, Territories, and Provinces in which the Society has a membership.

The Third Annual Meeting will be held at the City of Louisville on the first Wednesday, Thursday, and Friday of December 3d to 5th, 1873.

All persons interested in the development of the interesting science of Apiculture are solicited to attend.

other plants. It is also produced by the sprouting or germination of many seeds, as in barley before malting.

The use I will make of the article will be to publish it in "The Annals of Bee Culture" for 1873, an annual publication I have been editing since 1869. I send you the last volume, with this that you may see the character of the work. You will see that it numbers among its contributors the most eminent Apiculturists and also some prominent Naturalists.

Bees use any and all of the sugars, and from them generate wax, rear their young and subsist, equally well.

Can you throw any light on the process by which the different species of *Aphides* produce what is called honey dew, or on its origin otherwise?

D. L. Adair,
Cor. Sec. N. A. B. K. Society.

Adams Building,
23 Court St.
Boston.

C F Adams
h

Dec^r 20th / 82.

My dear Mr. Gray

I am writing for the
Prince Society, Thomas Mortimer's
New English Calendar, a book
written in 1634, and describing
New England before the settlement.
In it I find a very short
chapter on herbs of the country.

The subject is one that I know
absolutely nothing about. I en-
close you a galley-proof of the
chapter. May I ask you, in

cause of good editing, to write
a few brief notes, giving the
scientific and present popular
names of the various herbs men-
tioned? -

By so doing you will greatly
oblige

Yours very sincerely

Charles F. Adams for

Prof. Gray

Cambridge.

Adams Building,
23 Court St.
Boston.

October 7, 1891

My dear Sir:

The Committee of the Board of Overseers for nominating the visiting committees of the several departments of the University for the present year, has been appointed.

Will you be so good as to inform me at your convenience whether any, and, if so, what action has been taken by the committee last year appointed to visit the Herbarium?

Would you also advise me whether in your opinion any changes in that committee are desirable, and, if so, what persons you think might be dropped without injury to the committee, and what other persons placed upon it?

An early reply will oblige, as the Committee of the Overseers is desirous of completing the work of revision of the visiting committees at an earlier date this year than it was completed last year.

I remain, etc.,

Dr. Sereno Watson,

Cambridge, Mass.

Charles F. Adams

Henry Lee

F. L. Ames

H. H. Hammett

H. P. Walcott

Aug. Howell

E. G. Kennedy

Robert Allen

M. T. Kirtland

M. C. Nash

F. A. DeBenedictis

B. P. Cheney

G. W. Harrison

T. F. Allen

H Adams

Harvard: Coll: 22 April 1871.

Dear Sir

It is very important that the North American should have a proper estimate of the late books of Mr Darwin and Mr Stewart. After the most careful enquiry I can find but two persons competent to do it; yourself and Prof. Wyman. The latter is out of the question, and I have no choice but to make it a matter of conscience with you. If you refuse, the subject must be put into hands which will do no good and will perhaps do harm.

I would like a body-article of 30 pages, to be ready certainly by the 20th Novy. Failing that, I would like one of 20 pages. If this is impossible, I would

be glad of a book-motice of fifteen pages;
and, to conclude, I will publish with
pleasure any motice, of whatever size,
you will consent to give me.

I am very truly Yrs

Jenny Adams —

Prof. Gray —

Adams

91 Marlboro Street. Boston

8 April. 1874.

Dear Sir

The North American Review ought to contain a notice of the life and works of Agassiz. The task is so difficult and delicate a one that it cannot be trusted to any inferior hand, and I prefer not to have it undertaken if it is not to be properly done. Yet it furnishes so fine a field for good work that I am unwilling to leave it unattempted. You are the only critic I know, competent

to deal with it in such a way as
is required, and therefore I venture
to make application to you. If
you decline it, I fear I must leave
the subject untouched.

Let me add that I should
be very glad indeed to have any-
thing else which you may feel
disposed to give me for publication.

I am

Yr. ob^d. Serv^t.

Henry Adams.

Prof. Asa Gray—

At a meeting of the
President and Fellows of Harvard College

in Boston, June 1stth 1886.

A letter was read from Professor Asa Gray enclosing a check for \$1000. a gift from Judge Addison Brown, and Messrs William H. DeForest and Edward Livingston of New York, for "a fund for the support of an Assistant Professor, or Assistant in Herbarium work."

and it was

Voted that this gift be gratefully accepted and that suitable acknowledgement therefor be made in the name of the President and Fellows.

A true copy of Record

Attest:

L. L. Adams,
Secy. per Lamb.

Professor Asa Gray.

Lund, Sweden, 16 Dec. 1868.
and Aug 21

My dear Sir!

Your letter of the 17 Nov., enclosing cards
of Michaux and Ad. & Lefebvre, reached
me a few days ago; and as soon as possible
I am anxious to send you my best thanks
for all. I assure you that these cards and
especially that of Lefebvre, ^{with} whom I was once
personally acquainted, gave me much pleasure
and I have only to lament that your letter
did not contain one of yourself, which I should
be very happy to have as soon as you can
dispose of a copy.

From the circumstance that you had taken
daguerotypes of those celeb. Botanists I think

I may conclude that it will give you pleasure to have early of also other botanical; to include also one of my Father, from a portrait that was taken in the last years of his life.

I am also very thankful for your amiable offer to send me a copy of those of your works, which I did not already possess. The works of yours I have are the following:

Pinus Wrightiana Part 1-2.

all the papers in the Lyceum of Nat. Hist. of New York

Bot. memory exhibit. from Vol. II. Americ. Acad. of arts and Sciences.

note on the genus Graphophorum.

List of dried plants collected in Japan.

Statistics of the Flora of the North States
abstract. from Vol. XXII. & XXIII.

Also at hand sent.

Botanical contributions, from the V. Vol. of the Proceed.
Notes upon some Rubiaceae - Proceed. Vol. IV.
On the spec. of Lactalbum ibm.

Toney and Gray

Report of the exped. for a railroad from
Mississippi to the Pacific.

Viz. near the 32 parallel. - pag 159-178.

41. } 2^d pag 119-132. Pl. X.
38
39

I have directed a copy of the wanting part
of Species Algamm to be sent to you via
Liphie.

With high regards Tecumseh

My dear Sir

Yours obt. servt.

G. Gardner

Luizy L. Agassiz
Dec 29/93

My dear Mr Gray

There are among father's books,
a number of botanical works, for which
I have no special use. You may find
some use for them in the Herbarium
Library & I shall be glad to send them
to you. There is also a copy (complete?)
of the *Flora brasiliensis* and of the
Flora fluminensis, which I can send you
if they belonged to father?; are not already
in the Library - perhaps you can use it
as a duplicate until my father has
mentioned to you that he possessed the
books, I am under the impression they
were his own.

Yours truly
Alb Agassiz.

A. Agassiz
Writing to me 2/4

My dear Mr Gray

Your kind remembrance
of father's birthday I find on
my return home for Calcutta.
Shall I send it to the general
fund or the teacher's fund?

always yours truly
A. W. Agassiz

Respectfully
A. W. Agassiz.

A. Agassiz

MUSEUM OF COMPARATIVE ZOOLOGY,
CAMBRIDGE, MASS.

My dear May

I hardly know how to
express my feelings of regret at
the action of the Trustees of the
Peabody Museum in sending the
name of Putnam to the Impera-
tor as Professor of Archaeology.

While fully realizing the
difficulties of the case and the
peculiar relations of the Trustees
to the University. I cannot help
looking at his appointments
as a distinct lowering of the
standard of a scientific Represen-
tative to the University. No one
is more ready to admit than I am

The excellent qualities of Putnam as a collector and as a Curator
now or I wish to detract in any
way from his devotion to the ~~best~~
interests of the Peabody Museum
But are you ready to reward ^{more} industry,
loyalty, devotion & promotion to a
Professorship above all others,
requires that its incumbent
should have the widest possible
culture? of he is to represent before
the scientific world American
archaeology as it should be represented.
Surely the grounds on which this
nomination is urged have not
your sanction as representing the
highest interests of science and you
can not be ready to place in Wyman's
place professorship among Putnam's

MUSEUM OF COMPARATIVE ZOOLOGY,

CAMBRIDGE, MASS.

caliber? The establishment of a
 Professorship is not going to alter
 Putnam's relations to the Peabody
 Museum while it does not meet
 as is so often the case with other
 appointments - a crying want.
 There are no students or pupils
 clamoring for instruction and
 asking to have the machine kept
 going by the appointment of the
 best available man. The Museum
 will be as well taken care of by
 Putnam as Curator - and I cannot
 help feeling that such an appoint-
 ment is offering a premium to
 devoted mediocrity and is to a
 certain extent a mark of want of

appreciation on the part of the
governing Boards of the latter work
which is attempted here.

I have been perfectly frank
with you in this matter as I do not
wish to seem to you or to any other
member of the Trustees to be acting
in an under hand way or my
opposition to their action.

Yours truly
A. Cassin

Pupsee Asa Gray.
Cambridge.

Quincy Street,
Cambridge,

E. C. Agassiz

Jan 5th 1886

My dear F. Gray

It gratified me very
much to see your article
about Agassiz's life and
letters in the Audubon Review
and I - day I receive a
copy which I think may
come from you - at all events
I thank you for it and
am very much pleased that
you cared to write the notice
With cordial regards

and best wishes of the
kind friends to you and
Mrs Gray believe me

Most truly yours

E. C. Agassiz -

P. S. This note was written last
evening in preparation for the
morning mails by which comes
yours announcing the Receipt.
With renewed thanks

Most sincerely yours
E. C. Agassiz -

Agassiz

My dear Gray,

Though I thank you for your valuable remarks, I should have saved you some hesitation by stating more distinctly that I did not intend to institute a comparison of ^{the} Lake Superior plants with those of Europe generally, but simply with those of the Tura & Alps. My special knowledge is too limited to undertake so vast a task. Your difficulties about the separate lists might also be removed on considering what I remarked of the greater difficulty to draw lines over flat countries; I have allowed myself often to be determined by the well ascending limits along our slopes of the analogous plants ^{corresponding to those} found on this continent. Again there should be no great objection at finding some of these plants extending very far south, as it is a peculiarity of this continent to send forth its northern species far southward, animals as well as plants. Many identical birds of the arctic fauna which never cross the Alps in Europe, reach the gulf of Mexico in their migration in America. This again influenced me. The 2^d list you should I think acknowledge, as the aquatic flora from really everywhere peculiar features in the countries where they occur, though it is sometimes very difficult to draw the lines. In the 3^d list I have strictly American types, i. e. genera peculiar to America, or typical species which have no representatives in Europe, & although 2/3 of the plants of the first list are as you say also strictly American, they may be considered a part ^{non-generally} of the character of the temperate zone as such, as they have corresponding representatives in Europe & Asia. But of course I am not in every instance sufficiently familiar with all the analogous or unanalogous to pick out the closest resemblance. Your extensive knowledge affords therefore indispensable aid for which I can not enough repeat my thanks. I shall have another proof of the doubtful species for you. If you had a moment we might run through my parcels & you could take what you want.

Yours faithfully
Agassiz

Monday night.



Dr Wm Gray

Botanic Garden

Cambridge

22

My dear friend,

We have decided to leave for Niagara on Monday next to travel about for 3 weeks or more, and I find I have so little time before me to prepare work for Mr. Tappan & for my assistant and to keep every thing going, that I must give up the pleasure of being introducing to your fair lady, till I come back. I will thank you for all assistance you or Mr. Carey will give Charles when he comes for your plants in the garden.

Yours truly

Wm. H. H. H.

Thursday Morning

Dr Geo Gray

Cambridge.



East Hebron Me.

26th July 1889

Dear Sir

I send you, in the absence of Prof. Goodale, some seeds from a place called Sweetash Valley on the headwaters of the Visqually River twelve miles from the base of Mt. Rainier, gathered by Prof. C. D. Allen.

He calls one sort *Dicentra formosa* s. The other is a coarse swamp plant probably biennial with spikes of spurred flowers and seed pods that snap like *Impatiens*. If at any time you should find it convenient to employ me, I would like to work in the Herbarium again. I am still without occupation of any consequence

though I can not be sure
how long I will continue so.
I forgot to say, the seeds are from
Washington D.C.

Very truly yours

John A. Allen
East Lebanon
Maine

East Hebbron Me. 13th Aug. 1889

Mr. J. Watson Cambridge

Dear Sir

Some years ago I sent a *Nitella* from a large spring in a peat bog here to Mr. T. F. Allen, who thought it might belong to a new species. It was then sterile. This year it is fruiting. I have not now Mr. Allen's address, so I write to you though perhaps it is rather out of your line. If there is anyone now in Cambridge who is authority on Characeae, please refer it to him. If not, please send it on to Mr. Allen, whose address I suppose you can easily obtain. If the plant is of interest to anybody, I will make a number of good specimens and send. I can also send some of the fresh plant if desirable.

Very truly yours

John A. Allen

East Hebbron

Maine

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PIERRE de P. RICKETTS, Ph. D.

JOHN H. BANKS, E. M.

METALLURGISTS, CHEMISTS AND MINING ENGINEERS.

TELEPHONE CALL, "39TH STREET, 143."

CABLE ADDRESS, "RICKETTS," NEW YORK.

CABLE CODES,

CLAUSON-THUE'S "A. B. C."

MORRING'S "MINING."

EAST FORTY-NINTH STREET, CORNER OF FOURTH AVENUE,

NEW YORK, Sept. 11th 1891

Mr. J. Watson Cambridge

Dear Sir

I am considerably discouraged because it appears that I cannot live decently here on twelve dollars a week month while the smaller sum answered perfectly well at Cambridge. I shall hunt up the man who got me this place on Sunday, and if he does not advise against it, and the firm is not disposed to pay living wages I think I shall write and

ask if you can give me the Ball job again in case you
have not got anyone else for it. It makes a great
difference with ones' peace of mind whether he gets five dollars
a month more or less than just enough to live on, and
I feel as if I had made too great a sacrifice in changing the
wrong way merely for a chance of permanency. If I could
see any way to follow up botany as an occupation I would drop
chemistry altogether. I have sometimes thought that perhaps
I could get a living as a collector in tropical and uncivilized
countries. I will write again Sunday

Care Rickette & Banker
104 John St.

Very truly yours
John A. Allen

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MOREING'S "MINING."

~~EAST FORTY-NINTH STREET, CORNER OF FOURTH AVENUE.~~

Dr. J. Watson Cambridge

NEW YORK, Sept 15th 1891

Allen

Dear Sir

In accordance with the advice of my friends here I today asked this firm to pay me sixty dollars a month. They postponed decision until Wednesday before which time it would not be practicable for both members of the firm to discuss the matter together. If you have not yet looked up anyone for the Ball job,

could you postpone doing so until then so as to give me a
chance to ask for it?

Very truly yours

John A. Allen

care Ricketts & Banks

104 John St. New York N.Y.

PIERRE de P. RICKETTS, Ph. D.

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MOREING'S "MINING."

— EAST FORTY-NINTH STREET, CORNER OF FOURTH AVENUE, —

NEW YORK, Sept. 16th 189/

Allen

Dr. J. Watson Cambridge

Dear Sir

I have decided to take advantage of your kind offer in respect to the Ball job. I shall start for Cambridge some time within a week. I will write again as soon as I know the exact day

Very respectfully yours
John H. Allen

I, ea sir -

I am just in receipt of your
note of Sept. 24, having just returned from
the west. The package to which you re-
fer has not as yet come to hand, but is probably
in New York, in the U.S. Custom House - As
soon as it comes I will have it sent to you -

Very truly yours
J. Allen -

Mrs. Comp. Zoölog,

Oct. 14, '73 -

N. longifolia — Lvs. broadish at base, oblongly truncate or cordate — without glands. (Least lvs. glaucous?)
over an elliptic. All lvs ^{more} undulate in our species than the
foreign, the lower larger, and the valves more strongly curved. —

N. Patinaria — Lvs. broadish above the base, sub-
attenuate or subcordate — more or less gland-
bearing. (Achenium perhaps rather narrower
in proportion than those of *N. longifolia*.) —

S.W. — July 1874.

New Haven, Connecticut, Feb. 13th 1882

Mr. S. Watson

Dear Sir I have just forwarded to you by Express specimens of the plants which you marked in a list sent you by Mr. Fisher. We added a few more and also some which we could not name, chiefly species of *Arenaria* - If you can give us names for these we shall feel under much obligation to you - *Arenaria* is a hard genus - for me - Prof. Eaton who has often assisted us in working out hard things did not seem to be much attracted by the *Arenariae* -

If on looking over the named species you observe any obvious error please let me know. Among them I have a shade of doubt about the following: *Astragalus rubricolor*. (^{*Antennaria Canadensis*} *Plantago eriopoda*, *Arnica alpina*, and *Oxyc. orthotela* var. ^{and *Hippuris maritima*} *Drummondii*, for I have never seen specimens of them - It is rather difficult to travel in the Shickabuck and no collecting of any account has ever been done there - We hoped therefore to

find some water flow there
since snow stays till August on
Mt. Albert and Table Toped Mountain
which are supposed to be the two highest
points in the range - We camped
five nights on each - But on
account of bad weather we could
not explore Table Top satisfactorily -
This mountain was never visited
but once before - about 20 years ago
by Richardson an explorer in the
service of the Canadian Geol. Survey
It affords upwards of 50 square
miles of alpine ground
and many deep ravines. Doubtless
many interesting plants grow there.

Yours Truly
Ch. D. Allen

P. S. Notes

Viola renjolia is very common, more abundant than other
orients in all the mountain region we over between Little Belt
and St. Anne des Monts, and of flowers with large semi-prime summer
leaves - stems in flower only in high ravine on Mt. Albert
along with *V. pubescens*.

Don't know of any records with collected above the proper
tree line and taken in an alpine form, of reaching about a
few inches high along with *Viola glauca* etc.

Some *Relbunium laevigatum* is very abundant on
the mountain above here and also *Pandanus palmatus*
the latter sterile - we saw it in fruit on low ground.

I think the *Dryas octopetala* var. is not common, we
saw in few places especially among the ground on the
lower part of St. Anne's ~~mountain~~ but not where else

J. F. Allen, M. D.

St. Clair Smith, M. D.

10 East 36th Street,

New York Jan 30 1870

Prof. Lucius Watson

Dear Sir

Let me thank you for your interest in my marks on the Characeae - I have worked at them many years - formerly corresponded with Prof. A. Braun and have collected a large number from different parts of the country - At present I am writing up the Characeae of the Canadian surveys for Prof. Macoun; they are most interesting having some new and transitional species; one I have named C. evoluta.

More than 20 years ago Prof. A. Braun named a Tolypella Californica from the Pacific coast and several rare species are known from there, for example N. clavata from the San Francisco water works. It would give me great pleasure to write ^{up} the western species for you, or to name and return any you might like to send me & I am, naturally, desirous to obtain all the species of the continent for my work, which already embraces over fifty species and distinct varieties - Tolypella prolifera A. B. from the upper Missouri (Hayden) I am anxious to obtain, can you put me in the way of it?

The late Prof. Braun wrought order in the Characeae which were in a chaotic state and his system of classification, based upon morphological characters seems to stand the test - I regret that Mr. Halsted in his brief

and imperfect account of our species saw fit to follow a trivial classification devoid of any principle. His work is deserving of severe criticisms. The worst errors are as follows.

Nitella Capitata in Halsted should be N. glomerulifera A.B.M.

" gelatinosa var sigaulia " " " N. prelonga A.B.M. 1852

" intertexta " " " N. megacarpa Allen - (This species is a representative of the polyglochis series which characterize the Nitella of this continent, we have also of this series N. microcarpa A.B.M. and N. oligosperma var wrightii A.B.M. of the Mexican boundary survey and other varieties of the polyglochis series. These occur also in Asia but not in Europe

Chara ceratophylla is doubtful the Florida ~~specimen~~ ^{specimen} belong to C. Hornemannii

" Hahnianii Halsted is the old C. Hydrophilis which I knew from New Jersey and the west; Nordstedt thinks our forms are sufficiently distinct to be named var. septentrionalis (see my Exsiccatae). I visited Apponaug purposely to identify the species there.

Several distinct varieties of C. gymnopus named by Braun in Plantae Lindheimeri and elsewhere are entirely overlooked by Halsted.

The Gymnopodae are strongly marked on this continent. Those of the Unistipulatae C. Hydrophilis (monocious), and C. Hornemannii (dioecious), are well represented.

of the Bistipulatae C. gymnopus with its varieties, and C. sejuncta are widely known and diffused ~~all~~ these Gymnopodae are also found in Asia but not in Europe.

we are beginning to trace the distinguishing features of our American Characeae.

There still remains some points in the development and nutrition of these plants to be elucidated. I am trying to do something in this direction but shall not "rush into print" yet.

John -
J. Allen

J. F. Allen, M.D.

10 East 36th Street,

New York, Feb. 1st 1881

My Dear Sir

It will give me the
greatest pleasure to determine
your Characces - I will
attack them immediately
on the completion of my
work on the Canadian
murrey. and return them
in good time.

Very truly yours -

J. F. Allen

Mar. 27 1882

My Dear Sir

You could hardly have
sent me a more interesting plant.
(label enclosed) - It is to be compared
with Wright's specimens from N. Mexico
in herb. Gray, but has larger nuclei.

I have an article in type for the
Am. Naturalist on the N. Am. varieties
of this ^{species} plant - which I will send
you as soon as it is published,
with specimens -

Fasciculi 2 & 3 are nearly ready
& will soon be forwarded you -

I wish you had "grabbed" a hundred
or two of this plant - it is a nice
form -

Yours -

J. F. Allen

To
Prof. Watson

No. 10 East 36th Street,

New York, Aug 29 1889

My Dear Sir

The Charad. jar sent is *Nitella*
flexilis, Ag. very common -

In regard to inserting the
Characeae in the new ed. of the
Manual I must say that
it would afford me great pleasure
to write them up for you, I have
the American species pretty well "in
hand" and think they could be
presented concisely and intelligibly
still a plate should be given
two plates better or even three for
some of the diagnostic features are
puzzling to those not used to mi-
croscope work. I start tonight

for the Toronto Convention taking
in Lake, Seneca on the way (that Lake
is full of most interesting Characids)

I will set at work, evenings
during my absence, on the
pages for Java and will submit
my ms. to you in a short time

I presume that description
contributions moved in no way
interfere with the publication of
the 11th part of my Characids of America
which will contain descriptions
of all American species N. and S.
America.

Yours Truly
J. Allen

I return in two weeks.

Dear Sir

Fort Gratiot Mich
24th Aug. 1849

I am indebted to the courtesy of some friend at Cambridge, perhaps Prof. Longfellow or yourself, for a copy of the Evening Traveller of the 16th inst. containing the proceedings of the Scientific Convention on the first day.

I am pleased to learn that you have in your Botanical Garden a specimen of the Silphium laciniatum. My object in writing is to request that you will take the trouble to make the experiment alluded to by Dr. Hare of seeing if its leaves can be moved under the influence of "a powerful steel magnet or an electro-magnet". I always wished to do so, but never had the opportunity on the frontier where I saw the plant - Delicate instruments to test the presence of magnetism in minute quantities could also be applied -- The latter experiment might be most satisfactory: ~~as a powerful magnet might well find in many plants something to be attracted -~~

My main object was to give facts not a theory - I shall be glad to see any exact solution of the phenomenon; & to yield mere conjectures at once —

You state in your remarks before the Convention that the fact of its tendency to point north & south is probably to be accounted for by the action of light, "leaves being disposed

as is well known to turn their upper surface to the light" - Answer - If this tendency existed in the Sulphur Aciniatum, should not the leaf present its face to the sun at mid-day when the light of the sun is most intense? - On the contrary it turns its face towards the rising or setting sun when its rays are most oblique and least intense. At noon its plane passes through the sun, as it were shunning instead of seeking, its fiercest rays. (This I suggested in my first comm^{to} to Nat^l Instit^l in 1842.)

— However, the fact of the radical leaves in the Botanical Garden not exhibiting the peculiarity would favor, ^{your} ~~the~~ idea, as it is probable that in that garden it is not subjected as regularly and completely to the action of the sun's light as on the prairie. Your suggestion "that vertical leaves tend to take a position which exposes the two surfaces equally to the light of the sun," may be the true explanation of all the phenomena. This tendency (I suggest) would be different from a disposition to present the surface of the leaf to the strongest light, as alluded to above.

I used the phrase "polarity" only with reference to the tendency of the leaf to arrange itself north & south, without reference to the cause for the same. The name "Polar Plant" was the one I first heard given to it by the officers of Dragoons in 1839 west of Arkansas, where I first saw it, & it is the name used by Major Nathan Boone with whom I conversed about it. The words Polar & Polarity are I think

often used in a sense not alluding to the presence of magnetism, as in your Manual - p. 12, th par. 16th.

If the plant was caused to grow on the top of a house perhaps it would exhibit the same peculiarities as on the prairie, & that would confirm your theory, or suggestions -

I will beg your permission to add a few lines on the subject of my suggestion as to electrical currents. I did not (as your remarks would convey the idea) suggest that the resinous matter of the plant would conduct such currents - The fluids of the plant might conduct them - It is found in Electro-magnetism that there are many arrangements of electric currents in one plane (turning on a vertical axis) which would cause that plane to point north & south - Also all students of Electro-magnetism know that electrical currents sent through a spiral coil (what Amperé calls an "Electro-dynamic coil") will cause that coil when revolving on a vertical axis to arrange itself north & south - Now botanical works inform us that plants are made up of minute cells permeable to fluids, that they often are (see your Manual par. 9) spiral vessels, or elongated cells, or ducts, made up of a coat of delicate fibre - In another part you speak of the medullary sheath consisting of an "extremely delicate ring of spiral vessels, the earliest formed part of the woody system" - In par. 58 you speak of the woody tissue as also entering into the composition of leaves. - Again the experiments of Faraday & others have led to the supposition that the number of substances in nature in which electric or galvanic currents can be excited are very numerous, see p. 99 of Dr. Roget's treatise on Electro-magnetism - I must therefore be allowed to say that

the idea is not to be at once rejected that electric currents might permeate the plant, conveyed by its juices -- The modus-operandi is another thing -- (The action of the Torpedos in giving electric shocks is not yet fully explained see Sir Humphry Davy or Rogets Galvanism par. 89) Resinous matter is a substance in which electricity is easily excited by friction, but it would remain still to show how galvanic currents were established -- I referred to the existence of resin in the plant, without stating how its presence would act, but as a notable fact --

The testimony of Prof. Morris would appear to be conclusive as to the peculiarity of the plant as he states that when as a surveyor he was running with compass in land. East & west lines, he would uniformly see their broad faces -- This confirmation, with that of Mr. Lapham in his communication to you, together with what I have adduced, would seem to leave no room to doubt of the reality of the phenomenon --

I hasten to write you as if you shall concur with my request to make the experiments above alluded to, it should be done as soon as possible, before the plant loses any of its vigor by the approach of autumn -- It will confer a favor if you will write me the result of such experiments --

With high respect
I remain very truly
Your obedient

Prof Asa Gray M.D.
Harvard Univ, Cambridge
Mass

Bruf. Alvord

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American Book Company,
PUBLISHERS OF SCHOOL AND COLLEGE TEXT-BOOKS, CHARTS AND MAPS.
New York, Cincinnati, Chicago.

806 & 808 BROADWAY,

New York, Oct. 7, 1890.

Professor Sereno Watson,
Cambridge, Mass.

Dear Sir:-

Shortly after you left our office, this morning, the enclosed note was received from the State Librarian of New Hampshire, asking for information on several points connected with the botanies. We have tried to answer his first two questions as far as our information went, but you may be able to give him more definite information than we have on these points, and also to answer his question with regard to the botany of California.

Allow us to express our gratification at your call upon us this morning, and to thank you for the very satisfactory statement of your plans in the revision of the Botany. We shall be glad to receive your memorandum on the matter, and shall endeavor to do what we can to carry out your revision to a satisfactory conclusion.

Very truly yours,

AMERICAN BOOK COMPANY,

A. D. Hancock
for Editorial Committee.

24.10

I send you by this mail a copy of Gray's
 manual in which I have inserted the
 desired corrections to be made in the plates.
 There are additional errors & omissions
 that should be inserted, & some more
 extended corrections than are desirable,
 will it not be very easy to add from
 pages 7 "Further additions & corrections,"
 on pages 735¹, 735², 735³, 735⁴ which
 will simply necessitate one or two
 wing of some leaves instead of two
 at the present?

There should also be on the blank
page following the Certificate a "date"
marking the Commencement,
with your approval & with your
this matter up over the initiation.

I enclose herewith as to the
Revision of the 4th, only the

12

627

5

Memorandum.

HERBARIUM OF HARVARD UNIVERSITY,

BOTANIC GARDEN, CAMBRIDGE, MASS.

Oct. 10th 1890

In the revised edition of the Field,
Forest & Garden Botany it is understood
that the purpose & scope of the work
shall be essentially the same as out-
lined by Dr. Gray in the preface of the
present edition, excepting the extension
of the territory to include the States bor-
dering the Mississippi on the west,
Tennessee, & the more elevated portions
of the S. Atlantic & Gulf States. The
number of pages should not exceed
five hundred. The revision will be begun
at once by Prof. C. R. Barnes, with the
expectation of its completion in the

issue of the book by the end
of the coming year.

James Watson

Officers.
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PUBLISHERS OF SCHOOL AND COLLEGE TEXT-BOOKS, CHARTS AND MAPS.
New York, Cincinnati, Chicago.

806 & 808 BROADWAY,

New York, Oct. 11, 1890.

8 + 21 x 24 + ~~15~~ 4 x 16 + 4

Sereno Watson, Esq.,
Cambridge, Mass.

Dear Sir:-

We have your favor of the 10th inst., advising us that you have sent a copy of the Manual, with corrections indicated, and also enclosing the memorandum in regard to the ^{re} ~~di~~vision of the one for Forrest, Field and Garden Botany.

We shall at once have the corrections made in the plates of the manual, and if it is possible to add the four pages of further additions and corrections, we shall do that also. The only difficulty is that the book now prints in regular forms. and it might break the order of printing and necessitate an additional form, to add the pages indicated. If the Glossary could be thrown ahead one page, to begin on page 739 and end on page 748, and then, if, by any possible condensation, the List of Orders on pages 736 and 737 could be brought down to one page, we could thus gain two pages. Could not all the additions and corrections beginning with page 733, be set in somewhat smaller type, so as to make these two additional pages answer for all your needs at the present time? If it is a matter of necessity to have these additions included, and if there are likely to be further additions and corrections from time to time, considerably increasing the pages, we will take the additional space. even at the necessity of adding to the number of forms of printing, but if

the matter can be met in the other way suggested, of course it would be preferable to do so. We desire to make the book thoroughly satisfactory and to keep it entirely abreast of the times.

Yours truly,

AMERICAN BOOK COMPANY,

A. D. Hancock
for Editorial Committee.

over 11/30

Officers.

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PUBLISHERS OF SCHOOL AND COLLEGE TEXT-BOOKS, CHARTS AND MAPS.

New York. Cincinnati. Chicago.

806 & 808 BROADWAY,

New York, Oct. 14, 1890

Prof. Sereno Watson,
Cambridge, Mass

Dear Sir:-

The copy of the Manual with corrections as suggested in your recent letter, came to hand yesterday and the changes in the plates will be made at once. When you have decided as regards the further corrections and additions of which you wrote, we shall be glad to give them also, immediate attention.

Your plan to push the work upon the Field, Forrest and Garden Botany, so as to have it ready in ample time for the botany work of 1892, is an excellent one, and in order to be sure to have it ready for that season, it would be necessary to begin the work of type-setting early next summer, and we hope that Mr. Barnes will be able to put the work in shape for that purpose.

The size of the book should be, as you indicate, about 500 pages. Even forms run 480, 504, and 528 pages, so that we should aim to average about 500.

Yours truly,

AMERICAN BOOK COMPANY,

H. D. Hancock
for Editorial Committee.

Oct 14 / 90

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American Book Company,
PUBLISHERS OF SCHOOL AND COLLEGE TEXT-BOOKS, CHARTS AND MAPS.
New York, Cincinnati, Chicago.

806 & 808 BROADWAY,

New York, Oct. 17, 1890.

Professor Sereno Watson,

Cambridge, Mass.

Dear Sir:-

We have your favor of the 14th inst., and would say in reply, that the additions and corrections to the Manual, will be made as you suggested. It was only on the supposition that the matter proposed could be brought into the present space by a little re-arrangement, that we made the suggestion of condensation. There is no reason why the book should not be thoroughly accurate and comprehensive, and so it will be done.

We are in receipt this morning, of a communication from Mr. Barnes of Madison, informing us that he intended to begin upon the work of revision of the Field, Forrest and Garden Botany, at once. We send him, at his request, three copies of the present edition, and shall be glad to know of the progress of the work, from time to time. We trust there will be no question about our being ready to begin the composition at such time next year, as to have the new book out by the 1st of January, 1892. Additional plates of revisions and corrections will be made in Cambridge, and we will communicate with Messrs John Wilson & Son, requesting them to forward the work as rapidly as possible.

A new edition of the Manual goes n the press in the course of a week or two, so we should like to have this matter forwarded to us

as rapidly as possible. The plate correction which you send, will be attended to at once.

Yours truly,

AMERICAN BOOK COMPANY,

A. D. Hancock

for Editorial Committee.

06/11/90

American Book Company

806 AND 808 BROADWAY, NEW YORK CITY

Nov. 14, 1890.

Prof. Sueno Watson,
Cambridge, Mass.

Dear Sir, —

Your favor regarding the changes in chemical plates came duly to hand. As to the corrections being printed on separate sheets for those who have bought the first edition we can easily print a quantity of the extra pages which you have had set up giving additional corrections to follow page 735. For the other corrections we do not see how it will

be practicable to do it. Further it is very difficult to reach those who have the books. The large majority have dropped the study and are, at any time, graduated to higher studies. If we could reach the few who preserve their books for future study it would be worth while to do so. We shall be glad to have any suggestions you may offer in this matter.

As to charging even a small price for corrections of a text book we hardly think it wise to do so.

Yours truly,

AMERICAN BOOK COMPANY,

A. D. Farrow
for Editorial Committee.

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New York, Cincinnati, Chicago

EDITORS' ROOMS

806 AND 808 BROADWAY, NEW YORK, Mch. 17th, 1891.

Prof. Sereno Watson,

Cambridge, Mass.

Dear Sir:-

The new edition of Gray's Manual was put upon press in November, and copies were out soon after the first of January. In printing the book we omitted the line calling attention to the fact that this was the second issue of November, 1890, as we have found this notification to be very embarrassing in many cases, - parties desiring to return books which in some cases were purchased a year or two previously, and demanding the new edition in place of said books. We therefore simply put the book out, and trusted to those capable of appreciating the difference between the present edition and the former one understanding the points in its favor, and finding the corrections and additions when needed in their research.

The copy which you requested to be sent to Mr. Weigel of Leipsic, Germany, was ordered sent, but through a misunderstanding of our Mailing Department was not forwarded at the time. We have sent the same, and trust it will reach your correspondent in due time. The delay was really due to an over cautiousness for fear

Prof. C. Watson.

2

that the wrong edition would be sent, so that the matter was laid aside and overlooked. We send you two copies, and also a copy to Professor Barnes, as requested.

Yours very respectfully,

AMERICAN BOOK COMPANY,

Henry H. ...

Mar. 17/91

Received of Mr. J. H. ...
the sum of ...
for ...

Officers.

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PUBLISHERS OF SCHOOL AND COLLEGE TEXT-BOOKS, CHARTS AND MAPS.

New York, Cincinnati, Chicago.

806 & 808 BROADWAY.

New York May 4. 1891

The Estate of
Prof. Asa Gray -

Will you kindly inform
us if you have for sale any copies of
Prof. Gray's Flora of North America
in two vols, or either of the vols? -

If not do you know of any
to be had? - We have enquired
for them and are under the impression
that J. W. Blakeman & Co (whom we succeed)
bought all you had.

Yrs truly
American Book Company
by Bridgman

1 in sheet

67 12

67 21

26 of lessons

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New York, Cincinnati, Chicago

EDITORS' ROOMS

806 AND 808 BROADWAY, NEW YORK, June 10, 1891.

Mr. Sereno Watson,
% Harvard University,
Cambridge, Mass.

Dear Sir:

Your favor of the 8th is at hand this morning, and we are very much pleased with your favorable comments on the Tourist's Edition of Gray's Manual.

This book has been received favorably by botanists who have seen it, and we are endeavoring to call the attention of specialists to this form of the book. The sales of the Manual should be considerably increased by reason of the adaptation of the work to the use of the field botanist by this compact and convenient form of publication; and we hope that botanists will accord to the newly organized Company some portion of the credit for this attempt to meet their wants.

Very respectfully,



Taylorville, Indian Valley,

Phumas Co., Ind. July 6th 1895

Dear Dr. Gray;

Your kind note and
the report on plants was received
last mail with many thanks. I went
up in the mountains this forenoon
in search of the *Leptoglossum*
but could not find a solitary
specimen. I felt so sad and dis-
appointed about it that I could have
sat down and cried. I had but a
single specimen - to me I sent you
retaining only a leaf and blossom
by which to identify the plant.

This specimen was collected some
four or five weeks ago and since
then the sheep have had a wide
range and have absolutely des-
troyed almost every ^{thing} ~~plant~~. I know

[116 miles away]

of a locality on the summit between
this valley and Honey Lake where
I know I can find it if I stake
there have not ^{all} it ^{up}. But
there's a band of 2,000 (stake)
there now & I fear it I may not
be able to find it again this sum-
mer. I do not however despair
& will not give it up.

Lobelia lasiocarpa, *Euphorbia*,
Lonicera, *Styrax*, *Pedicularis*, *Pachystima*
Saxifraga virginica, I collected in
April in Butte county a few
miles from the Plumas county
line.

I shall mail you another
small parcel in a few days &
will include *Dorlingtonia* &
flowers.

I rec'd and answered your
request for specimens for Miss
Dorlington. I wrote you at the
time but thinking you might

not have rec'd the letter I
mention it here. Mr Lemmon
visited ~~us~~ us a week ago
and will be in Greenville
(Indian Valley) to-day or to-
morrow en route to Lassen's Peak.
He had a splendid collection with
him when here - a wagon full -
"I will, I know, when he returns from
Lassen have to make two or more
trips to convey all his plants home
He is looking quite well. I was
delighted to observe in Holser's
"Revision of the Genus *Leonurus* &
descriptions of new plants" *Silene*
Lemmonii

I have ~~not~~ written to my
mother to collect for me fruiting
specimens of the *Euphorbia*. She
will most willingly do so as
she is visiting in the section
where I collected it.

Most Respectfully yours,
Wm. E. Pursh & Ames.

Indian Valley, Plumas Co.,
Cal. Aug. 16th / 875.

Dear Dr. Gray;

I send you
to periwinks, I promised you,
of Dorlingtonia. I have
also put a few for Miss
Dorlington which I forward
by some mail, so that
you may keep these for
yourself.

I exceedingly regret that
I cannot find the *Leptoglossum*
in fruit and shall have to
mail until another season.

I will send you fruiting
specimens of *Leptoglossum*.

Very respectfully Yours,
Mary E. Pulsifer Ames.

P.S. I shall be able to send you

a number of fruiting specimens
of the Euphorbia you wished,
with a package of other Butte
country plants - which my mother
collected for me. The Erythra-
minum in my last I
collected in Butte co., in Apr.
together with the Pedicularis.
I hope to have the pack
off ready for mailing by
the last of this week.

I see by a local "Rural" that
Mr. Lemmon goes to the
Big Trees, to make, or as-
certain their correct age,
at your request. You
could find no better or
closer observer than he
to accomplish this.

Yours truly
W. D. Porter

259

Taylorville, Plumas Co.,

Cal. Apr. 8th, 1876.

Geo. E. Davenport—

Dear Sir,

I have
not yet mailed the package I
spoke of in my last letter.

The condition of the road over the
mountains preclude the possibility
of any regularity in the arrival
or departure of the mails, which
still continue to be brought over
by men on snow-shoes.

Please accept my sincere thanks
for four copies of the Medford
Chronicle containing your excellent,
instructive and interesting articles
on the "Flora of Medford," and also
a catalogue of the North American
Ferns which you presented to the

Mass. Hort. Society. A Bulletin of
the Toney Botanical Club contained
a notice of this valuable collection
and your generous donation of
it some to the Hort. Society.

I am, ^{indeed} very grateful to you for a
copy of the Catalogue.

It is with mournful regret, I
learn of the destruction of the Old
Elm on Boston Common. I learned
to love it as a dear and valued
friend and never went to Boston
without paying it a visit. To me
it possessed a wondrous charm
and often when standing beneath
its grand and stately shade
how I wished it endowed with
the power of speech - what "a
tale of its times of old" could it
not have told!

Was the Old Elm ever photo-
graphed? I have some splendid

roots of the silvery Gymnos-
gymne for you which I
shall mail you soon as I think
it safe to do so. The package I
shall also send when the roads
become better.

Yours respectfully yours,
Mary E. Pulsifer-Jones.

Taylorville, Indian Valley,
Phimass Co., Cal.

May 23rd. 1876.

Prof. Watson -

Dear Sir;

I mail you
to-day a few fruiting specimens
of the new Dentonia. They
are some I found since I
wrote you a few days ago.

The fruit of those I am culti-
vating is not yet mature, but I
watch over them with tender
solicitude. It is difficult to find
it in fruit as some kind of
beetle or insect manifests
a special fondness for it and
eats off the blossoms and fruit leav-
ing only the stem and leaves.

I have a few more in reserve

Rosa — see Crocin

Helianthus coccineus, Gard. Chron. 2. 6. 201
1876.

Taylorville, Indian Valley,
Thomas Co., Cal.

June 24th, 1876.

Prof. Watson —

Dear Sir,

I mail you
to-day a fruiting specimen — the
most mature I have been able
to find — of the Lordamine.

I thank you most sincerely for
the honor — if distinct — you will
confer upon me. Allow me, please,
to repeat the request expressed in
regard to the *Lentonia* var., — that it
bear my maiden name in honor
of my dear dead father.

I shall search more closely for
mature specimens but scarcely
hope to find them this season
is so far advanced. Respectfully and
sincerely yours, Mary E. Pursh — Ames.

- Enckthia praealta*, Raf. Poir. in Lamn. M. 3. 607.
Tachysandra praecumbens, Mx. " 3.700, t. 994.
Crotonopsis linearis " 3.709, t. 995
Chrysandra coccinea " 3.710, t. 995
Chimanthus amygdalina, Raf. 72. Ind. " 3.710.
radula aurantiaca. " 3.713.
Dileptium diffusum & *prae*, Raf. 3. 661.
Stanleya pinnata " 3. 655
" *granilis*, Dc. " [*Cleome lanigera*, Sbl.]
Dyosmone amaranthifolia, Raf. 71. Ind. 46. 3. 653. (aff. *Bignonia*?)
Synandra grandiflora, Raf. Poir. 3. 646. (Lab.)
Macbridea pulchra, Nutt. 3. 646.
Hydrophilis purpurea. 3. 645, t. 967
Achlys triphylla. 3. 641.
Stylophorum diphyllum & *pubolatum* 3. 636.
Prosopora andromeda 3. 623.
Schweinitzia odorata 3. 622
Adonia odorata, Raf. 3. 621 = *Styrax Amer.*
Mylocaryum ligustrinum 3. 616, t. 952
Erigeron tomentosus 3. 609, t. 947.
Plectranthus tenuifolia, " "
Elliotia Muhleba 3. 603.
Durpratsia scoparia, Raf. 72. Ind. 55- 3. 597. ??
Diphyllid cymosa. 3. 595, t. 937.
Carlophyllum thalictroides 3. 595, t. 937.
Ananthopus clandestinus & *cortus*, Raf. 72. 21. - 3. 594. ??
Stylandra pumila, Nutt. 3. 585 Asclep
Amsonia angustifolia. 3. 584.
Enclenia alba 3. 583.
Heliosia bibrachata Raf. Enclenia, Raf.) 3. 566.
Antenoron racemosum. Raf. 72. 20. - 3. 556. *Antanth?*
Uralopsis purpurea, Nutt. 3. 546. Gram
Trifloria acer. 3. 545, t. 912.
Stylogyna crinita. 3. 545, t. 912. Gram
Oryopsis caprifolia 3. 539, t. 906.
Trichodina laxiflora 3. 534. "
" *praecumbens* "
Muhlenbergia diffusa & *serotina* 3. 536, t. 907
Chimanthus micranthemoides, Nutt. 3. 533.

over

M. E. Plummer

Auburn, Cal.

June 27th 1886.

Dear Dr. Gray; -

To-day I send
you a parcel of plants for
determination.

The *Brodiaea* I suppose
to be *B. Bridgesii*. The flowers
are a beautiful reddish-
purple which does not
show in the dried specimens.
It is now here. I found
these specimens on the American
River hills.

Should there be any in
the parcel that you would
like more of please let me
know and I shall be very
happy to send them to you.

With sincere regards,
May E. Pulsifer Ames.

Auburn, Cal.
July 24. 1890.

Dear Mr. Watson:

Mommy thanks for
your very kind note of
the 16th. inst. which is
just received. I regret the
plant did not prove to be
new, but as you say, it is
very much better to have
learned this now than later.

I thank you most kindly
for giving me its name.

Gratefully yours,
Mary E. Pulsifer Ames.

Auburn, Cal.
Dec. 1st. 1891.

Dear Mr. Watson:-

Returning, after
a five weeks visit in
San José, I found
your kind note and
the determination of
plants awaiting me.

Arabis (36) I
found in our place.
Had not detected it
before till this Spring.
Zinnia pumila, Gray.
is from Arizona, but

all the others except
the following I found
in or near Auburn.
Ranunculus alismifolius,
Beyer, Lake Tahoe.
Polemonium humile, Willd.
var. *pulchellum*, Summit.
Phacelia humilis, T. & G. "
Streptanthus campestris,
I fail to find among
my numbered specimens,
but it is undoubtedly
the one I have from near
Jona Hill - Placer Co. -
I remember that I
thought of sending it

because I could not
decide upon the species.
Lychnis lithospermum grew on
our place, and *Bidens*
fendosa in Auburn
Ravine.

Thanking you most
kindly, I remain
Sincerely yours,
Mary E. Pulsifer Ames.

And, Mar 9

Carson City Nevada Territory
March 9th 1864

Prof. Asa Gray, Dear Sir;

To-day I start by Wells &
Fargo's Express a box containing a collection of plants made principally in this vicinity. I do this principally at the suggestion of Horace Mann who visited me a few days. I trust the action will be agreeable to you. I have numbered such as I would be glad to have you name for me, keeping duplicates ^{mutual} so that I can refer to them. This mutual exchange will be very satisfactory to me and I hope you will be recompensed for the trouble it may give in finding something new.

Very Truly &c

Chas. L. Anderson

P.S. Charges on box are
all paid here to your
place.

Please let me know when box arrives.

Carson City April 14 '66

Asa Gray M.D.

Dear Sir

I returned a few days ago from a trip of 3 weeks to the south east and was happy to find your letter of Feb. 24th awaiting me. I was too early in the season to find the plants of that region yet sufficiently advanced for botanical purposes. Old winter still held them in his grasp. Consequently my attention was directed almost exclusively to geological observations. I collected 3 or 4 species of plants unknown to me which I will send by mail soon.

In regard to the parcel sent you I wish to explain and apologize for my neglect. It was put up with the expectation of having to pay letter postage on it. The P.M. told me I could send

it as "seeds, cuttings, &c.", when I took it to the office. I had it mailed as such, not thinking of the writing that had been enclosed. Of course I shd. have put it up properly had I taken a sec. and thought. I trust you had no extra expense if so let me know and I will make all right. In future I will be more careful.

The pamphlet containing account of n. sp. &c. of which you speak has not been recd. I am very sorry if it is lost, for I value your favors of that kind very highly.

That "pigmy lupine" No. 20 of last parcel is found in fissures of rocks near summits of mts. in this vicinity - if I remember correctly. I have taken it for a dwarf - but being found so regularly of the size sent you and in localities away from other lupines I did not feel certain.

It was Mr. Shetch who promised me specimens and sent to Dr. Torrey. He has recd. appt. as "State Mineralogist" of Nevada lately, and is now on a tour of exploration to the south east part of Nevada. He is an Englishman, has a fair knowledge of the Natural Sciences, and withal a pleasant and rather promising young man. His facilities for collecting plants are not good, owing to his attention being taken up with mines and not having apparatus for carrying botanical specimens. I think however I can arrange to have make his position of service in a botanical point of view during the coming season.

I will soon make up another parcel and the "Amygdalus?" will be attended to

Ever Yours

C. L. Anderson

Santa Cruz Cal. Ap. 25th 73

Dr. Asa Gray
Dear Friend

I mail to day
a box of roots for you. You may
thank your friend Foster, who presented
his letter yesterday, for being instru-
mental in securing these things. I
went out collecting with him and
remembered you when I came to
the Whipplea. I put in some roots
of that and cuttings a few. I think
they will grow. There are several
scraps of other things - two roots
of the *Trillium ovatum* - two or three
of the *Clintonia Andrewsii* - some
roots of the *Viola sarmentosa* and
ocellata - may be something else that
I have forgotten. But I think

you have these things already in your garden. Let me know what you would like for your garden and I would be happy to send it.

Mr. Foster came in a good time to get the flora of Santa Cruz - and he has loaded himself with specimens.

Kindest regards &c

J. L. Anderson

P. S. The little white Bulbs are our Fritillaria. Foster thinks you have it not in your garden.

I have just recd. a letter from Mr. Bebb of Ill. I have sent him our Willows and he thinks one is a new species. He will doubtless send to you for your determination.

I will make up a little package of our species and varieties here

and send you I think. We have 3 quite distinct species; and there are, as I think, 2 very doubtful species. I must study them a little more and send notes with the specimens.

If new Mr. Bebb thinks it - a "splendid acquisition". But we shall see - and between you and me I am pretty confident we have beat the 3 sp. and the other forms are either hybrid or vary on account of locality. I have now never the less ^{forms of} ~~many~~

I enclose 3 ^{forms of} leaves. No. 3 grows in the running water on the edge of streams. No. 2 grows on banks and hillsides away from water but shaded. No. 1 is near the water in sand and near sloughs, ^{not shaded}. I have not been able to compare the fruit but I feel pretty sure they are the same species. But three characteristics ^{only} are persistent according to the place I find them growing.

growth of No. 1. But without fruit I am not able to compare the two.

No. 7 Only the 2 plant. Silky Canescent. What is it? I thought it was the Bigelovii growing in running water as I found it at first. But yesterday these specimens came from a locality distant from water, and just as silky as the others.

Can't you help Mr. Bebb. and ~~me~~ out of the Willows and give us firm ground. I know they are quite a troublesome family and there are hybrids and many varieties, but this No. 1 is so characteristic that it is strange if it has not been described ere this

Yours &c

B. L. Andersen

Santa Cruz Cal
April 29/73

My Dear Prof.

I wrote you the other day and sent a box of roots etc. - I spoke of sending you some willows. I now mail you a package in a very unscientific way - green specimens of one Willow all done up in a bundle. It is an experiment and I do not know whether they will reach you in good order. But the willow being a very flexible and tenacious plant cannot be injured so that you may not be able to find out something about it. You will find

numbers tied up with each little package.

No. 1 Is the female plant of willow which Mr. Bebb is so elated about. He thinks it is new, and a "splendid acquisition" if so. It is rather late to get good specimens. It forms a fine vigorous tree, bark rough and in seams. Mr. B. will doubtless write you, hence I send these specimens. If it is new Brewer should get it into his Botany. What do you think of it?

No. 2. The male of No. 1. You will find an anomaly in this parcel, a small branch ^{with} male and female aments.

In both there I have included some branches that would

grow if set out and cared for.

No. 3 This Mr. Bebb calls S. Bigelovii. He is right doubtless. The male catkins have all disappeared as it blooms very early. These are female only.

No. 4. Mr. B. thinks this is the S. Sitchensis. I send ♂ & ♀. It blooms late and just now the specimens are fine. There are cuttings of this also that might grow.

^{scarcely seen}
~~It was Sitchensis near Whales~~
No. 5. This fruits very early and no catkins can be formed now. Mr. B. thinks this is lucida or lanceolata. I cannot decide. It has slender drooping branches of a dark brown. I half suspect it is but a weaker rather S. arguta

Santa Cruz Cal Sept 2/75

My Dear Prof.

Today I mail for you a pkg. of the new Arctostaphylos, which you so kindly propose to name for me, containing fruit, flower buds, new and old leaves, etc., all but flowers which I could not find at this time, but shall send you in a few weeks. This plant grows in the "Big Tree" grove near Santa Cruz. I have never seen it anywhere else, but presume it is found other places in Cal. In growth and habit it resembles the Arbutus Menziesii growing 6-10 feet high erect with paler colored stems than the other "Mangaritas". In this pkg. you will find a few specimens of the A. tomentosa that you may compare them. The new one grows in rich moist shady places on the north side of a high hill among Redwoods, Oaks, Hazels, and Beanothus. I cannot find A. pungens or glauca. In your letter which I recd. 2 years ago you called one specimen I sent A. pungens - but I can find no difference from tomentosa. The leaves vary considerably but they all seem to be one species. I should like a specimen of pungens or a brief description. No Phacelias have come in my way except those already sent you. I am very glad to hear of your good health. Kind remembrance to yourself and wife in which Mrs. A and my self heartily join.

(over)

Ever Truly Yours
C. L. Anderson

P.S: Looking at my Nevada collection I find what you call *Arctostaphylos* penguins was glauca, No 102, of my coll. And you. If this is *A. penguins* ~~the~~ certainly have not seen it growing about Santa Cruz. S. Watson's description of glauca is good for the Nevada specimens.

Yours
C. L. A.

Santa Cruz, Cal.
Feb. 15th 1876

My Dear Prof.

Yesterday I took a walk into the mountains above the Powder Mill to get willows for Bebb and chanced to find a small tree of the new "Mangarita." It was beautiful to look at all covered with flowers at this season and remembering that I promised you some for your herbarium I herewith send you a lot. They may curl up a little on drying altho' I put them in papers and tied the package tight so as to act as a press somewhat. You will see the old leaves are still on the

stem. - On my return I found
your letter in reference to your
niece. I have no doubt she
would be a valuable addition
to our corps of teachers and I
wish I could say come at once.
But our school opens in about
two weeks and there would not
be time for her to get any
kind of certificate, without
which we could not employ
a teacher. The only certificate
recognized by our State from
abroad is a ^{state} Normal School
Diploma. I think this law
will be changed very soon
so as to include competent
teachers from other states.

Better defer her coming until
next summer or autumn for
this reason. Altho' if here now
I could find a place ^{for her} soon

after the examination of teachers which
takes place in March.

We have built a large
school of 12 rooms and are
very anxious to have it open
well and with good teachers.
There is scarcely a doubt but
Miss Bragg whenever she thinks
best to come would find
employment soon.

The pay for teachers in places
like Santa Cruz is about 60¢ to
80¢ per month.

Now we have over 30 inches
rain at Santa Cruz. Good for other
parts of state but not for
Santa Cruz. We generally have
too much when they only have
enough back from the Coast.

Yours Truly
G. L. Anderson

Anderson

Santa Cruz, Cal.
Oct. 13th 1877.

Prof Asa Gray,
My Dear Friend,

I was in hopes you would not be hurried so much, and that you might find time for a few days at Santa Cruz. It is true the season was unfavorable for Botanical work, but the trees are always fresh and interesting. I had nothing new however to offer you. For some reason I had no chance to even write you, so that your movements were nearly all executed before I knew what they would be. I might have looked across to Monterey, or possibly run around and shaken hands with you, but you were gone like a beautiful dream before I awoke to a reality of your presence so near. This everlasting

hurry takes away so much of
the pleasure of life. But then,
"Art is long and life is short" and
we must hurry through. So we
grow older the work accumulates
and overcomes us with its mag-
nitude. Of the great field before us,
widened beyond the reach of mortal
eye, and lengthened away into eternity,
we can only take up a little flower
here and there, and by and by
the sun goes down and the land-
scape fades from our sight and
we look upward at the stars as
we wend our way across the dark
valley, guided by one little glimmering
star away in the distance, which
we can only see by the eye of
Faith - hoping all the while that
somewhere and sometime a bright
day shall dawn, and that little
star will become a sun, and the
landscape shall glow with a
light never seen on this little

sphere of ours! — But I am wandering a little beyond the domain of science — where Tyndall would call the "region of theory" and of which he would speak as "a mere figment of the intellect" — "a theoretic conception".

I trust ere this you have safely arrived at home and with your good wife are enjoying the rest and retrospection of your long trip.

I read Lummis's letter in the Rural Press of a visit with you and Dr. Hosken in the Sierras (near my old home at Carson) with much interest.

I ^{hope} you may have time some day to write me or letter, or at least should you publish anything let me have the pleasure of seeing it.

I am still quietly worked at Algae and other little things at Santa Cruz.

I have heard nothing from

Dr. Farlow directly for 2 or 3 months
I understood he is not going on
the Woodruff Expedition and that
he is up somewhere in Maine.

My wife joins me in very kind
regards to self and Mrs. Gray.

Ever fraternally yours &c.
C. L. Anderson

C. L. ANDERSON, M. D.,

Office and Residence: Front St., Between City
Hall and Covered Bridge.

Santa Cruz, Cal., Dec. 3rd 1888

My Dear Mrs. Gray,

In due time I reached home, and have fallen into the groove of business as comfortably as a boy tumbles from his bicycle. I can scarcely imagine that I have been away down east—even to the city of Boston, for every thing goes along as of yore, and my absence certainly did not impede the progress of the seasons or interfere with the "pro-cessing of equinoxes". One lady in Sunday School yesterday ~~thought~~^{said} it was very convenient to have me back; another wished to amend by saying pleasant as well as convenient. Whether the amendment was adopted or not I did not stop to ascertain. One thing however I am quite confident of: I had an excellent visit at Harvard, and I feel very thank-

ful to the friends there who made it possible for me to enjoy it. At present I can but wish you the richest of blessings. I wish I could send you a good slice of our lovely weather that we are having just now - in fact almost ever since my return. It does seem a real comfort and both "pleasant" and "convenient" to have such a "glorious climate". In coming home I traveled one night and part of a day between Cheyenne and Ogden in snow drift - and a heavy snow storm. So that when I got home my voice was subbase and my head a base ball in sensation, (ie, as I imagine a base ball feels after being clubbed) I had so much cold that I could spare a large share for my wife and daughter which they have been enjoying ever since. Wasteful & generous?

That lunch basket and glass of quince marmalade were substantial things that I will not soon forget - unless I forget the happy things, and the good things, before I do the evil ones. The evil men do live after them", we are told; some wicked fellow punched a hole in the basket in the wicked city of Chicago, and that hole I brought with me, and I shall always remember that in association with the good things in the basket - and may it not be a good thing - that evil done to the basket - if it should only serve as a ^{continual} reminder of the donor of that basket and the quince marmalade. But I am

sure now that I do not need such a reminder.

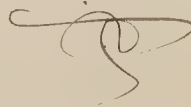
I imagined I could see Dr. Farlow and Prof. Watson holding on to their hats and cars during the late blizzard in the east that the papers tell ~~me~~ about. It must have been a fearful storm. Did you feel it at Cambridge very much?

Excuse so much nonsense. I only intended to announce my safe arrival at home, and express my thanks for your kindness.

Kindly regards to Profs. Watson and Farlow and Miss Gray, and please accept the same for yourself.

Hoping to hear from time to time of your welfare.

I remain sincerely
Your friend

C. L. Anderson


Great Falls, Montana.
Lock Box 77,
July 6/89.

Dr. Sereno Watson,

Cambridge, Mass.

Dear Sir:- A recent letter from Prof. John M. Coulter contains the probable name of a new Eriogon-
ia found last year by my friend ^{the} Rev. F. D. Kelsey, of Helena, Mont., in the Cañon of the Missouri. Prof. Coulter writes for more material of the plant. I have written to Mr. Kelsey to send all he can spare of his own small specimens accompanied by as full notes as possible on the mode of growth and general habit of the plant. We have not had opportunity of obtaining any specimens since Mr. K. found the original one.

Our roses here ^{have} perplexed me sorely. Prof. Coulter told me to write to you for your revision of N. A. roses. Kindly drop me a card, when you have time, stating price & postage of the work and I will remit for a copy of the same.
Very truly Yours -
H. W. Anderson.

K. Anderson

Missionary Rooms, Boston,

Feb. 1. 1837.

Asa Gray, Esq.

New York City,

Dear Sir,

Your favor of the 26th ult. has been duly received, & is very thankfully acknowledged. We have from the first been anxious to secure, by means of this Expedition, that specific information concerning the islands of the Pacific, which is so essential to the extending of our operations among them. But, though confident of the friendly disposition of Capt. Jones, we had not, till your letter arrived, seen how we were to obtain it. We gladly receive your offer, & shall avail ourselves of it.

With our numerous avocations, it will require a few days to draw up the inquiries we wish to place in your hands. The object of these few lines is merely to acknowledge the receipt of your letter & inform you of the reason why

The answer is delayed.

I am, Dear Sir,

very respectfully yours,

R. Anderson,

Secy. of A. B. C. F. M.

Paid
 24
 Gray,
 Asa
 So

with

Miss? Rooms, Boston, Dec. 5, 1837.

My Dear Sir,

Yours of the 4th was recd. this morning. The ship Osage is to sail from Philadelphia about the 10th inst. for Madras. We have sent a man to Phil^a to make shipments for the mission, & I expect to be there myself about the last of the present week, though not on that account. I will, however, see that anything sent to the care of Mr. Henry Perkins, 134 Chestnut Street, is forwarded.

I am happy to be informed by you that Mrs. Dr. Torrey is a sister of Mrs. Ward. By some means I had been in ignorance of the fact. I hope to see you in New York, & am most truly yours, R. Anderson,
Wm. Dr. Dr.

To Dr. Asa Gray,

New York City.

Engle

Sir!

The 4th May last year expired here in Stockholm Professor J. E. Wik-
strand, during a long time very suffering and ill. I was by the royal
Academy of Sciences instantly appointed his successor, and knowing
how much friendship you, during the time of the now deceased W.,
bestowed upon our Botanical Museum, which received from you
many great and valuable collections from North America, I take myself
the liberty to address you any few lines, asking from you the
honour that you may favour also me with the same kind

Sentiments.

I have 1851-1853 made a voyage round the world in the
Swedish frigate *Eugenie* and brought home several collections,
in the arrangement and determination of which I am now
occupied. As we touched many of those places visited by
the great United States Exploring Expedition I find in your

admirable work of the Botany of this Expedition many and valuable informations respecting the plants, who have been collected by me. I should therefore be very glad if you would send me a copy of this Botany - as I do not know how I shall get it else, for Prof. Toris is wanting his exemplar for himself - and I will be very happy to return to you my treatise on the Flora of the Galapagos-islands and the following parts of ^{the Botany of} our Expedition. My address is only the royal Academy of Sciences at Stockholm.

Perhaps you have got already the greatest part of our Swedish plants. If not, it should make me a great pleasure to send you whatever you wish to obtain from this country. And you will also permit me to add some plants from my voyage (as from the Galapagos-islands, Strait of Magellan &c.) and from Brazil. As soon as you have informed me what it may please you to require from here, I will directly send it to you.

In the hope that you may forgive me this trouble and not believe me too impudent in asking your work

from yourself, but only take it as a desire to get into communication with you

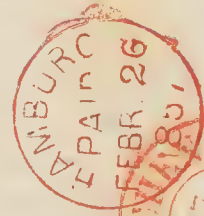
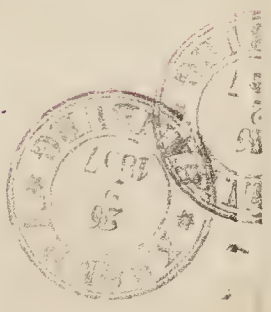
I remain yours

Prof. N. J. Andersson

Stockholm d. 17 Febr. 1857.

As I have been preparing since a long ago, a manuscript of the *Vegetation of the Galapagos*, I should be of a very great consequence to me if you could furnish me with the Bot. American species. Whatever you may please to send me shall be carefully used and sent back again.

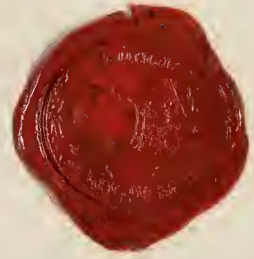
and one
and one



Prof. A. A. of Cambridge University, Boston

United States.

(Toronto, Ontario, Canada)
FRANCO



Send my love
to your mother
and father.

Dear Sir!

I have had the great honour to receive from you a letter, dated the 14 April l.a. and I beg to ~~thank~~ you to pardon me that I not yet have answered you. But my time has been employed in arranging and preparations for a tour through Europe this summer, and the first cause will be sufficient - I hope - for indulging me.

It is extremely pleasing for me to see that you wish to be so kind to go in botanical communications with me; and I shall be very glad to furnish you with all duplicates we can furnish. As I already have told you I hope to procure some from the collecting of my voyage and from Mexico, ~~which~~ brought home by Dr. Wiegman, and what else I can find you it will make me very happy. But I must say to you that it will be very difficult for me to prepare anything this year. I turn back from my voyage in October; and will be very much busy to bring in also what I can have brought with me from that little tour, and in writing the annual report of the progress of botany, to which I am obliged as professor by the Academy of Sciences.

The course of our voyage with the Swedish frigate Eugenie was the following.
from ~~the~~ Carlskrona in border the Copenhagen, Norway and Portsmouth. Madira (2 days)
Rio Janeiro (14 days) Montevideo and Buenos Ayres (3 weeks). Through the Strait of Magellan,

(where I made very pretty collections), Valparaiso (8 d.), Callao and Lima (4 d.)
Panama (6 d.) Galapagos Islands (10 d.) Honolulu (8 d.) St. Francisco (12 d.) Honolulu
(2 d.) Tahiti (6 d.) and Enico, Savage island, Foa (Friendship isl.), Sidney and Wellington
(14 d.) Ascension (Barren isl.) Graham (Marina. isl.) Canton, Manila (whence I went
on very interesting tour into the interior of Luzon), Singapore, Batavia, Keeling Island,
Mauritius, Cape of Good Hope and St. Helena. The voyage lasted 22½ months; the
best collecting I made were from Straits of Magellan, Galapagos island, California, New
Holland and Cape of Good Hope.

You have been so kind to offer me copies, not only of your admirable
History of the United K. Expt. Exp. but also of other publications of your I do
not possess. This promise I gladly should accept, if I had any of them
already; but as I want them in (in upside I had occasion to see them
by my esteemed teacher Fries!) I am too ashamed of your liberality, to
But if you will permit me to find you books from here it would per-
haps make me more trusting to accept your generous offer.

As I am going to Paris and New especially to make pre-
parations for a Monography of Salices it should be of a very great value
for me if I could receive contributions from the North America
where this genus is so vastly distributed and from which possibly many
Species yet are unknown to me. Whatever you may think proper

to send me - and as soon as possible - I will be very much obliged
and make use of it so, that you may find me not at all unworthy your
assistance and friendship.

Hoping that you may forgive me all trouble I am making you

I try to be believed

Your most respectful

N. J. Anders

Stockholm d. June 1857.

LYALL PLACE

Professor C. S. Lyall
Harvard University
Massachusetts, Boston
(New America)



Am
Jan 4th

Dear Sir!

When I at the end of July last came to Kew I got a letter from
You through Sir William Hooker, informing me that you had sent me a parcel
of books and also your collection of Salices. When I had returned to
Sweden in the first days of October I got another, informing me that the
books were sent in a package from the Smithsonian Institution to
the royal Swedish Academy of Sciences and that you had thought
it worth sending your Salices, as you believed I would see all the
species in Dr. Hooker's herbarium. Now, to day, I have been ~~pl~~ happy
to receive all these books, ^{*} all these pamphlets and publications
of such an value from so eminent an author; and I if I not now
make any endeavours to tell you how glad, how honoured I am
You may be so kind to believe that I feel it impossible for me.
In Swedish it were very, very difficult; in English it is quite impossible.

I don't really know any way how to show you my gratitude.
What I yet can send you is so little, so insignificant; and yet
I should be very happy if you would accept that little, and wait for

I will reception of the plates to your possession of the Kew. Express them
I have not seen any in the parcel.
I hope they sent for you!

other years, when I may have to show better fruits.

Meanwhile I never will forget how kindly you have induced me, and I will ever try to show myself worth your kindness.

As to the *Salix* I really saw a very great deal of North American forms by Sir William. But in studying the European species I have been convinced how necessary it is for the just idea of a species to be large masses of forms. I have not yet made up my notes of these species; but if it should be permitted to me I would express for you my belief that the greatest part of your species is nothing but analogous forms of the same. F. i.

<i>S. discolor</i> (a few forms nearer <i>S. viscerifolia</i>)	and <i>S. depauperata</i> nostra analoge
<i>S. cordata</i> (" " <i>S. angustata</i>)	<i>S. hastata</i>
<i>S. lucida</i>	<i>S. puberula ^{puberula}</i>
<i>S. pedicellaris</i>	<i>S. myrticoides</i>
<i>S. portulaca</i>	<i>S. depressa</i>
<i>S. Noronhaiensis</i> & <i>Richardsoni</i>	<i>S. laeta</i>
<i>S. desertorum</i>	<i>S. glauca</i> & s. p.

I have this summer had occasion to see several of the alpine species in Switzerland (e.g. *Salix glauca*, *S. lapponica*, *S. myrticoides* &c.); and I have found them to the exterior so very differing from our Lapponian types, that I can easily understand how they have got peculiar names in

these northern regions (*S. sericea*, *helvetica*, *Jacquiniana* &c.). So there must also exist a greater similarity between the northern regions in America and Europe; there must be a greater part of original species of shrubs common for them both existing with peculiar forms (*S. graciosa*, *S. ^{longifolia} longifolia* &c.). But now there is with us another thing, making much confusion: the theory of hybrids. It can't be denied that hybrids exist in our country, if not so plenty as it is believed by Winnow. ^{are they} ~~Is it~~ not yet created in the New World?

Considering all this I am really in great confusion if I may venture to publish anything over a genus, and no doubt even so common in another part of the world as by us, and which part I have ~~not~~ learnt to know only by some very imperfect collections? On the other hand I have had occasion to see the most and greatest collections, to study all our species *State vivida* and in the most variable localities, so I could rather believe we have any right to pronounce some idea of the arrangement of the species.

I have got the collection from Mr. D. Candolle and promised to work out that genus for his *Prodromus*. Now I think to do on the following: when I have my little *locustae* completed, I will beg leave of you to send it to your approbation. Perhaps I may ^{many} ~~in~~ ^{many} things have erred; if so, you will be kind enough to correct me.

I should be very glad if you would procure me a little room in
any American Journal for a synopsis of the American species.
This may be believed the best way to hear how the matter the
may be ~~long~~ thought to have been treated.

But as I have promised Mr. DeCandolle also to give an
enumeration of the Populi I should be very happy if you ~~would~~
would send me all species you can procure. Without this assistance
I do not believe it will be possible for me to carry out my
undertaking.

Early the next spring I will prepare a little collection of various
plants from you (containing also Galapagos-plants). As I have selected
for me the Gramineae to work at, you should favor me very much
in communicating to me what you can of this interesting family.

I most sincerely thank you for the precious books and
herbaria I have this day received from you, I and I beg
even to be understood Yours most
thankful

Hochheim 2. 2 Decemb. 1857.

N. J. Andanson.

Stockholm th. 18 Febr. 1858.

Si!

I have been happy to receive your kind letter of the 4 Januari last.
As soon as it has been received by me I put myself to work out
a list of the North American Salicet known to me; but finding
that it will take more time than I at first thought, having to
go through not only my remarks on the Salicet of Hooker, but
also the specimens of De Candolle, Vienna and Berlin, newly sent to me -
(in order that this list may be as complete as possible; and, moreover -
finding that such a list ~~can~~ ^{will} not ~~be~~ ^{be} understood ~~and~~ ^{if} only
a "index catalogus", I have thought it proper to put forth - at
some length - my views of these species and give short characters
for the new. I hope to get it all ready to be sent very
soon to you, that it ~~may~~ ^{might} be published and serve to some
indications in collecting new materials for a more complete knowledge
of this genus. But as I find it will take perhaps one or two

would to have my little treatise reviewed and written so that You
may ^{read} it - I now take the opportunity to inform you that
I will send at the end of this month this "Synopsis Monographica
Salicium ex America boreali cognitarum" - and beg you to announce such
a little work that, in the beginning spring, the botanist, who will
favour me with some contributions may be aware to collect
flowering catkins, young and old leaves and specimens of the same
shrub in many stages of development. In herbaria the specimens
generally are very incomplete, and it is extremely reprehensible to have
fine and good specimens if anything ^{may} can be understood of foreign
Willows.

As to the Atlas of Your Botany of the Exp. Exp. these
certainly were announced in the list of books sent from Smithsonian Institution
to "Mr. Anderson 2 (two) packets." But only one was found. I then
supposed that the other may have been forgotten in America.

I think it will in every case be best to send all to me
or to you through Mr. Pöding in Hamburg. The communications from
Smithsonian Inst. are (as says our librarian) very irregular and deficient.

Almost every time there is anything wanting.

I remain for ever Your most obliged
A. J. Anderson.

Mr. Ira Gray

Botanics Professor at the Harvard University at

Cambridge

Boston

(United States) North America

North American Willows.

On north-american willows. By Prof. N. J. Andersson, Stockholm

In attempting an enumeration of the Willows of North-America every author must feel himself rather at a loss. Any acquaintance, even the most superficial, with the different species of that genus is sufficient to ~~show~~ show that a proper treatment of the subject ~~demands~~ requires that ~~to get a perfect knowledge of the same it is quite necessary~~ not only ~~to have~~ access to the richest collections, but also an opportunity of seeing almost every shrub for many years. Distributed over a great part of the surface of the globe, inhabiting a great variety of localities, ~~with~~ the species of this ~~genus~~ they are exposed to the most heterogeneous influences from all kinds of soil, ~~weather~~ (and all variations of climate, temperature, thus presenting a greater multiplicity of forms than most plants now known.

The literature ^{of the subject} also proves how very difficult it has been, and perhaps ever will be, to establish ~~any~~ certain determinations. While some authors believe ^{that} there are only a few species, others (as Schleicher, Tausch, Hook, ^{vs.} ~~among~~) seem to think: "species too numerous, and ^{create such} ~~innumerable~~ individuals".

If then a botanist ^{most favorably situated for the purpose finds it no} ~~easy matter rightly to understand~~ ^{easy matter rightly to understand} the ~~labyrinth~~ ^{labyrinth} formed by the Willows of his own limited native country, how embarrassed must not a stranger be, who tries to form an exact idea of this intricate genus in a distant ^(and) extensive part of a New World, ^{which} ~~where~~ he ^{sees only} ~~only~~ has ^{seen only} ~~seen only~~ in one spot (California! and for ^a ~~some~~ few weeks. But, as it ^{may} ~~must~~ perhaps always be impossible for ^{one person} ~~one person~~ to take a ^{fully to examine, in a} ~~few~~ ^{state} ~~notice of the living~~ ^{the Willows} ~~of the living~~ ^{and in their native} ~~regions,~~ ^{regions,} Switzerland, the Pyrenees, Siberia, Hindoos and North America (not to speak of the tropical regions); and as it nevertheless is of ~~some~~ advantage to science to have a Synopsis of all the known species, constructed

upon the ^{uniform} principles, a botanist may hope ~~not~~ to be ~~too~~ favorably judged, when he undertakes to publish his views of these plants, after having studied them in several of their natural districts and in the largest collections.

For two years I have occupied myself with the Willows in various regions of Lapland; I have afterwards collected them in ^{the} Riesengelände (Silesia), in Switzerland, and in many parts of the Continent and ⁱⁿ England; I have consulted the herbaria ^{(as well as the} botanical gardens of Paris, Berlin, Vienna; ^{also the} herbaria of ^{the} Mo. De Candolle and Sir W. Hooker (the ^{latter the} largest now existing and especially rich on plants from ^{the} North America). For many years I have wished to publish some general remarks upon this genus, and Mr. De Candolle has lately honoured me with an offer to expound it for his ^{celebrated Prodrôme} ~~Prodrôme~~.

But, in arranging my annotations ^{upon} the northern species, I could not but know how imperfect is our knowledge of the North-American forms. As the Willows especially belong to ~~the~~ cold regions, why should they not be ^{as numerous} ~~found in the same great quantity~~ in America as in Europe or Asia? As they are ^{in this} ~~so~~ extremely subject to variations ~~(from the largest to the smallest form in every part)~~ and to hybridisation (a fact now generally acknowledged), must it not be the same in the New World? To ~~be~~ ^{answer these and similar} ~~familiar with~~ ^{all} ~~this~~ questions, our materials in Europe are not sufficient, and ~~the~~ ^{alone,} ~~determinations,~~ ^{must be} ~~only~~ ^{more or less} founded upon them, must be imperfect and liable to ^{diocions} ~~mis~~ mistakes. In this ^{kind} ~~genus~~, it is very important to be sure that the ^{that the filices} ~~specimens~~, both of leaves and flowers, belong to the same species and ^{flames and fruit} should be taken from the very same shrub. But in ~~the~~ herbaria the preceding -

gathered by travellers who generally care but little ^{for} ~~of the~~ ^{impure, confused,} ~~Willows,~~ after are so ~~different~~ and miserable, that they only serve to make the study more difficult and uncertain.

If we look ^{into} the American Floras, published by various Authors since the time of Michx., we find ^{that the indigenous Salices.} ~~the only growing~~ ^{all} ~~species~~ of America ^{Salices} (with exception of few of the most arctic) have names totally differing from the European species. Now this was hardly to be expected, when the well-known fact is ^{is evident,} ~~considered,~~ ^{It is well} ~~known by experience~~ that the vegetation of ^{a large part of} ~~almost all~~ the northern regions is. I dare not say quite identical, but very uniform or all round the world. Hence, ^{although the indigenous} ~~homogenous,~~ ^{we may therefore conclude that,} ~~although the indigenous~~ ^{Willows in America generally are considered different from those in the} ~~Old World,~~ ^{we should look for a closer greater} ~~there may however be a greater~~ ^{than has yet been recognized,} ~~resemblance,~~ not only in the higher arctic regions (partially shown in Hooker's Flora of Boreo-Americana), but also in ^{the} ~~more~~ ^{southerly} ~~parts~~ southern parts.

And, in fact, my inquiries have persuaded me that the similarity or analogy in this respect is greater than is generally supposed. With my experience of the European Willows, which frequently vary upon one extremity of size, ^{e.g.} ~~from~~ ^{and} colour to the other, according to the area of the species. (e.g. ^{the} ~~the~~ ^{S. nigricans}), and which in different countries not seldom have the most different ^{aspects} ~~forms~~ (e.g. ^{S. Lapponum} and ^{S. glauca} in Lapland and Switzerland). I could not be surprised to find many American Willows equally ^{(varying} ~~different~~ ^{from ours, as many true variations} ~~have~~ although certainly belonging to European types, or at least to ^{find them so} ~~find them so~~ analogous to ^{European} ~~European~~ ^{relatives} ~~that they might be consid~~ ^{ered as} ~~as~~ ^{subspecies} ~~of them, till we~~ ^{discover} ~~the~~ ^{the} ~~intermediate~~ ^{forms, which are the connecting links of that unbroken series, which we may} ~~consider as~~ ^{(constituting} ~~a true natural~~ ^{genes.}

This idea is it anything more than my individual opinion? It must be proved by others; it must be ascertained by diligent, ~~unprejudiced~~ and accurate research upon the living species in America and especially by a botanist who has acquired a profound acquaintance with the European species, as older in the history of the science.

My esteemed correspondent,

Professor Asa Gray ~~has been~~ I am highly indebted not only for

the most liberal communication of his admirable publications, but also

for his ~~generous~~ promise to assist me in procuring materials for

a more complete treatise of this very difficult genus, has encouraged

me to send him ^{an enumeration} ~~a list~~ of the American species, already known

^{(which} ~~may bring to the notice of~~ ^{to my} ~~by me)~~ ^{of the United States generally, in the hope}

that they may be in ~~the hands of the botanists~~ ^{in the hands of the botanists} ~~who will favour me with critical observations upon the~~ ^{which are so greatly} ~~needed to perfect my~~ ^{needed to perfect my} ~~contemplated revision~~ ^{contemplated revision} ~~of the entire genus~~ ^{of the entire genus} ~~for Dr. Griseb's Pro-~~ ^{for Dr. Griseb's Pro-} ~~drum.~~ ^{drum.}

I must consider several ^{American} species as very much allied to or perhaps

identical ^{with} ~~to~~ ours in the Old World. But neither time at present

nor the space ^{at my command} ~~of a letter~~ has permitted me to treat the matter

at ^{the} ~~length~~ ^{requisite} ~~to~~ ^{it} ~~necessary~~ to prove the correctness of my

opinion. I have also been obliged to ~~give~~ ^{restrict} this communication to

for the new species ^{here} ~~proposed~~ ^{to} ~~a few~~ ^{synonyms} from

the principal American Floras. Should this

~~paper~~ essay fulfil its purpose & direct-

ing the attention of the botanists of the

United States to this difficult genus, and

bring forth the ~~same~~ materials and the

observations needed to dispel the many

remaining doubts, the author may,

perhaps, ^{hereafter} find an opportunity of publish-

ing, in ~~the~~ ^{the} ~~United States~~ ^{the} ~~new~~ ^{new}

World, a complete monograph of the

North American Salices, and thus:

"redet ad Dominum quod fuit ante

sum."

Stockholm, March 4, 1858.

Enumeratio Salicum nobis ex America boreali cognitarum

A. America Tr.

I. Austroales. Hae tribus, staminibus numerosis, filamentis subscaevatis
 basi saepe hirsutis, antheris minutis intus, squamis intus totum
 toris, capsulis plus minus longe pedicellatis et arto-globosis, nectario
 subanulari inaequali, Amegdaloides omnino analoga, regionibus meridionali-
 bus et tropicis fere praevalent. Hae pertinent hucusque omnes
 Africa et America indigenae, India orientalis plerumque (*S. tetragyna*
 et affines) et Persia; novae (*S. Humboldtiana*, *S. Thompsoniana*,
S. Hartwegii v. *Americana centralis* ~~et~~ transgredientes iterum Mexico
 australem incolunt.

1. S. nigra Michx. - Asa Gray Manual 2 Edit. p. 417 n. 16. Hook. f. l. v. Amer.

II. p. 148 n. 18. - S. ambigua Pursh. S. Houstoniana, S. caroliniana Michx.

- S. falcata Bth. (S. Purshiana Gr. S. ligustrina Michx. f.).

2. S. longipes Shuttlew. - fruticosa; amantibus lateralibus, pedunculatis, laxis; perian-
 culo foliato; capsulis arto-globosis, glabris, pedicello nectarium vix superante,
 stylo subnullo, stigmatibus brevibus indivisis; foliis lanceolato-oblongis,
 demum glabris, subtus glaucis, reticulato-venulosis cespugulatis.

- pubescens (S. gonypocarpa Shuttlew.); capsulis suberassioribus, et ad

fere longius pedicellatis; foliis utrinque hirsutis.

Hab. prope St. Marks, Florida. Ag. Reel.

Utrique forma non parum cum priori arguit, multos autem notis (foliis et tripu-
 latis v. J. ab ea differt. Quod id praesertim memorabile videtur, quod S. negram
 cum formis australibus (S. Thompsoniana, S. occidentalis et S. Humboldtiana) aperte conjungit.

3. S. amegdaloides n. sp. arborescens; triandra; amantibus lateralibus, pedunculatis,
 rigidiusculis; pedunculo foliato; capsulis arto-conicis, glabris, pedicello ne-
 ctarium vix superante, stylo subnullo, stigmatibus brevissimis partitis; foliis
 late lanceolatis, ^{utrinque} glaberrimis, subtus pallidioribus, margine glanduloso serratis,
 cespugulatis.

Hab. Missouri, Fort Pierre (Prince Neuvais) Ab. arborescens.

Hae quies, pro ceteris affinis, amegdaloides nostram latifoliam refert.

Habitu quasi hybrida ex S. lucida et S. nigra, hinc fructibus, illi foliis
 omnino similis.

II) Fragiles Tr.

4. S. (fruticosa) lucida. - S. lucida Michx. Asa Gray l. c. p. 417 n. 17. Hook.
 l. c. p. 148 n. 17.

- latifolia, foliis apice plerumque longe cuspidatis.

- ovatifolia, foliis non ^{vel} abrupte sicut cuspidatis.

- densiflora: capsulis condensatis majusculis, squamis subperispermatis.

In ripis lac. Winnipeg. Ab. Menthem.

- angustifolia
lucida Bth. squamis amant. glandulosis, filamentis basi subpilosis (California Bigelow.
 Whipples Expedition.)

-pilosa:^x Columbia river. Winnipeg lake. Fort Franklin.

5. Tendliana n. sp. ♂ - 5- antra; amentis pedunculatis, foliatis, erectis; ~~capulis~~ squamis amentis masc. magnis, margine glandulosis; capsulis ovatis, glaberrimis, piceo, cella nectarium bis superante, stylo evidenti, stigmatibus minimis integris; foliis ovatis, acutis, utrinque glaberrimis, creberrime glanduloso-serrulatis; stipulis latiusculis, glandulosis-ferratis.

habitu toto cum S. lucida maxime congruit, sed differt: capsulis brevibus et longioribus pedicellatis nec non foliis crebrius glanduloso-ferrulatis, quibus notis itam a

S. amygdaloides dignoscitur, cui omnino analoga

7-8. S. viridis Fr. - S. fragilis prorepida Barroet in Brook. herb. ^{ramulis}
 A S. alba differt amentis longis acutis et flexuosis, ^{ramulis} ramulis ^{ramulis} subpendulis, foliis
^{longioribus laticoribus}
~~caespide recta acutata~~ utrinque viridibus et lucidis. A S. fragili ramulis tena-
 cibus, pendulis, foliis caespide recta acutatis, maturis consistencia densiori-
 bus ^{sub prole.} non nigrescentibus, amentis erectis.

6. L. Wrightii n. sp. amentis pedunculatis; pedunculo ^{foliis} (2-3 oblongis, obtusiusculis in-
structo; squamis foliiforme deciduis; nectario basin pedicelli, semicirculariter cingente;
capsulis ovato-conicis glaberrimis, sat longe pedicellatis; ~~per~~ pedicello capsulam dimidiam
superante, ~~seu~~ gracili; stigmatibus sessilibus, integris; foliis anguste lanceolatis, longius

Hab. in Nova Mexico (nº 1877. P. Wright. Cal. Neo-Mexic. 1851-1852)

8. L. fragilis L. - Asa Gray l.c. p. 416. n. 14. Hook. l.c. p. 148 n. 16.

- decipiens Kaffr. foliis obtusiusculis; cortice ramulorum pallide testaceo.
- Russelliana B. Arbor exilis, foliis maximis, acutissime serratis

III. Lanceifolia. Anthera in ramulis lateralibus annuatis ^{elongatis} foliis terminalibus, ~~paucis~~
 vel bracteolato-lanceolatis, apice saepe glanduloso-denticulatis. (Folii primarii pinnato-~~trilobatis~~ incisi)

g. S. longifolia Nutt. - No Gray l.c. p. 417 n. 18. Hook. l.c. p. 189 n. 20. - S. subra Rich. (see Hook.)
el S. ~~nutans~~ vagante

Jam cognitum est, nullam ^{esse} aliam *Salicis* speciem (*S. cordata* ^{forte exceptis}) in America crescentem
 tam mirae ~~hujus~~ variationibus ludere. Statura nunc bipedalis, nunc 4-5 pedalis (qualis in
 California ipse videtur); nunc frutice erecta arboris instar, nunc humifusa vel repens, cortice
 rami longius criniosi aut breves subtorulosi cortice variis obducti; folia latitudine
 et longitudine, indumento et scrobatura vicinis ^{varia} ~~inductis~~ ^{annata} ut etiam ~~capulis~~. His annulis
 perfectis species sequentes (*S. sessilifolia* ^{W*} *Michxianiana* et *S. laxifolia*) tantum est
 formae ^{dentatae et oegi-dentatae} ~~quidam~~ per America regiones latissime dispersa species proponere vellem;
 quae autem in serie antiqua a formis maxime brevifolis et vlgatis ad minimas,
 microphyllas et penulas ^{membra} ~~substant~~ adhuc desiderantur. nomalia, eas seorsim descripsi
 duces, quod hic autumavi, annulis sit expertum. In ^{partem} formae autem numerosissimas
Salicis vere *longifoliae* haec praecipue notanda:

- angustissima: amentis laxifloris et eximie remotifloris; capsulis squamis aculeatis hirsutis primo non exsertentibus, basi parva gibbis, subglobosis, densissime sericeis, breviter pedicellatis; foliis angustissimis et argute dentatis, exsiccatione fusco-nigrescentibus.

" *Herb. in Texas* (~~Herb.~~ *Herb. Berland.* n. 911, 3019, 2381, 2368) et *Mexico nova* (n.
 1875 *Acc. C. Wright.*)

10. S. sessilifolia, Nutt. [herb. Hook.], amentis mascul. uncialibus, crassiusculis, cylindricis, acutis, densifloris; squamis oblongo-ovalibus, filamentis triplo brevioribus et

pilis albis staminibus brevioribus dense velutis, antheris post f. anthesin fulvescentibus; foliis pallidioribus, septatis exakte lanceolatis, medio semipollicem latij, acuminato-cuspidatis, utrinque dense griseo-tomentosis, pilis sat longis subadpressis ^{velutis} unicantibus, integerrimis.

Hab. in Oregon (Mr. Lobb. 1852).

* Hindsiana Benth. pl. Hartweg. et Herb. - amentis brevibus (vix semipollicaribus), squamis acutiusculis dense tomentosis, antheris pallide flavis, capsulis brevis pericella. tis e basi gitta longe superatis irregularis glabrescentibus; foliis anguste lanceolatis, medio 2½-3 lin. latis, margine integerrimis utrinque adpresse sericeis.

Hab. in California (Hartweg).

Ad eandem ^{nam} hanc ultimam ^{etiam} regionem subtropicam incolam spectant:

Salix taxifolia Bth. K. Nov. Gen. & Spec. pl. II. p. 22 (1817) - S. microphylla Schlecht. & Cham. Linda VI. p. 354. (1831) - pulcherrima ~~speciosa~~ forma, ut mihi videtur formis supra memoratis haud dubie in S. longifolia super abeunt.

B. Helix Fr.

12 H. S. purpurea L. - Asa Gray l.c. p. 418 n. 8. Hook. l.c. p. 148 n. 15.

13 H. S. viridula L. - Asa Gray l.c. p. 418 n. 9. Hook. l.c. p. 148 n. 14.

C. Vetriv Fr. Wied

I. Temperata (Subdaphnoidea).

14 H. S. acutifolia Wied. - Ramum ^{foliatum} ~~floriferum~~ tantum vidi.

15 H. S. (daphnoidea) irrorata ^{H. Sp.} ~~And.~~ amentis sessilibus, perulis tantum maximis primo bracteatis, valde condensatis, masculis brevibus, feminis horizontalibus, elongatis, densifloris; capsulis sessilibus, crasse conicis, glaberrimis, stylo productis, stigmatibus integris; foliis lanceolatis, utrinque viridibus; ramis densissime glauco-irroratis.

Hab. in Mexico nova (Coll. Fendler. n. 812).

Notare S. daphnoide ita est similis, ut vix notis nisi amentis vix condensatis et foliis (novellis) integerrimis utrinque viridibus ab ea distingui possit. Squam. amenti mass. pilis brevibus auris septatis squamis amenti fem. pilis sat brevibus griseis ciliatis, unde ament. fem. non ut in S. daphnoide longe pilosa conspicitur.

qua Chamisso (Linnæa VI. p. 543) & in America arctica occidentali pleris
 a se
 lecto, mentionem fecit. Inventa sessili, capsula non pedicellata, sed folia, fere ut
 in *S. phyllifolia*, utrinque acutata, viridia, subtus pallidiora, glaberrima. Stipulae
 persistenter, lineares. Unicum tantum specimen ex herb. Martiana videtur. Notandum
 ut *Salix Lapponum*, aliqui summorum incolam, etiam folia habere gla-
 brescentia.

23. *S. candida* Willd. - Asa. Gray l.c. p. 418. n. 9. Hook. l.c. p. 148. n. 14.

D. *Caprea* Fr.

1) *Cinerascentes* Fr. ^{pedunculata} *stigmata sessilia!* Antheris ^{vis} pedunculata!

24. *S. (Caprea) Capreoides* And. antheris sessilibus, & bracteis paucis et min-
 tis ^{primis} *capreoides*, densifloris; capsulis pedicellum diu superante, ^{stigmata} *stigmata*;
 foliis obovatis v. oblongis, basi angustatis, subtus glaucescentibus, pilis inflexi-
 bilibus viscosis, denique, nervis ~~et~~ exceptis, ~~callos~~ glabris.

Hab. in California (Cuthb.) et Oregon (Hook.)

S. Caprea vera ^{et} *capreoides*, quantum scio, in America nullibi reperta, hac forma
 tam ibi apte representat. Sed ad fructificationis partes vis ulla ceptat
 differentia essentialis. Inventa mascula ^{tamen} angustiora, ad feminea ^{capreoides} *capreoides*,
 utroque quam in nostra breviora; quare fere majores atrata, ~~obovata~~
 obovato-spathulata; capsulae a ^{bracteis} *bracteis* fere cylindricae, 2 l. longae,
 stigmata sessilia erecta. Folia novella utrinque inflexa-hirsuta, subtus etiam
 villis albo plus minus dense oblecta, denique denudata, integerrima, dura.
 Gemmae ut in *S. Caprea* vera subglobosae, glabrae; rami ^{scilicet} *scilicet* obscuri et
 globosi. - Proxima ^{huic} *huic* ^{est} *est* *brachystachya*; quae tamen differt
 antheris adhuc brevioribus, foliis densissime albo albo-^{velutinis} *velutinis*.

In ^{herb.} *herb.* *Hookeriano* *specimina*

25. *S. cinerea* L. ?

In ^{quantum visere possum} *herbario* *Hookeriano* *specimina* ^{ad} *ad*

hanc speciem referenda quibus amicus erat ramus foliis parvis, pubris,
omnino iis *S. rotunda* similis obiectus. Verum ne ~~in~~ confusione
quadam commista sint? ~~Labellum his verbis inscriptum:~~ ^{hab.} thickly along
rivulety Columbia-river valley near Fork Colville, 15-20 feet high, shrubby.

C. et. Geyser? Num *S. Caprea* ^{vel} ~~aut~~ *S. cinerea* hic crescit?

26. *S. ⁺Brochystochys* Wenth. pl. Hartweg. et herb. - amantibus sepius modis, brevibus ^(acutis) /
ovatis; squamis pilis longissimis sericeis dense vestitis; capsulis villis acutatis,
pedicello nectarium 4-5-ies superante, stylo nullo, filamento longis, integris,
divaricatis; foliis obovatis, subtus densissime velutinis-tomentosis, densum gla-
brescentibus, resescentibus novis.

Hab. in California (Woods near Monterey) Hartweg. n. 1957 (1851)

Inter dicitur 4-angyalis. Sat similis videtur prioribus, sed differt: amantibus humi-
dioribus, squamis modicioribus resescentibus pilis duplo vel triplo longioribus am-
plissimis sericeis, pedicello ~~superante~~ breviori, foliis ^{1 1/2} unguis longis super medium
unciam latij, subtus moliter velutinis. E notis precibus in Europa videtur *S. acuta* ^{hanc} ~~ut~~ facile interpres qui
habere.

Sub nomine *S. Scouleri* Navatt - Hook. l.c. p. 145. n. 4 in herb.
Hooker ^{vidi} ~~non~~ specimina duo florantia ad *S. Brochystochyem* absque ulla
dubio ^{et} pertinentia, et specimen foliatum *S. stichensis* Sap. Hoc
nomen itaque e *Salicem* turba excludendum?

27. *S. vagans* Aub.

Qui *S. depressam* Scandinavia, *S. Harknessianam* Rossia et Borussia et *S.*
rostratam America boreali attento, eorumque formas ~~fore innumeras~~
attento, nulla ^{certa} ~~judicia~~ ^{prodeceperat} ~~certa~~ apertissime prodeceperat, et
comparare studebat, non potest quin eas omnes ad unam eandemque *Salicem*
speciem pertinere credat. Hoc mihi saltem, specimina fore innumera
e variis terris inspiciente ^{omnino} ~~ita~~ ^{persuasum} habes. ~~ut~~ ^{nam} ~~non~~ ^{jam} ~~non~~ ^{allatis} ~~specificis~~
~~in~~ formas ^{tantum} ~~variis~~ ~~inter~~ ~~habent~~ ^{habent} ~~speciatibus~~ ^{vagantibus} ~~vagantibus~~ nomine
speciem notare volui, que per terras plurimas septentrionales late vagatur, que

insuper notis admodum vago est. Variet. fr. strata, et quae ducuntur
ad Flora lapponica n. 361, "arbor parva", sed in Flora suecica "arbuscula ad
Heronem Depressa"; variet. folia nunc globa nunc villosa, nunc utraque nunc
parva, nunc lanceolata nunc ovata s. obovata; rursus sine autem
variet. amenta laxiflora, ~~specifera~~ capsulis angustis (globis s. hitis)
subcylindricis longissime pedicellatis et stigmatibus coronatis. ^{specim. male} His premisijs
super species formas sequente modo proponendas censeo:

1) Int Cervicatus: foliis volutinis

a. linidana (Gr. Friis Nov. Malt. I. p. 89) foliis plerumque
obovatis supra convexis glaberrimis. Lin. Lapp. n. 261 (189. Friis)
L. linidans cinerascens Wils. Lapp. n. 273. - L. depressa & cin-
erascens Fr. l. c. p. 87. L. depressa velutina Koch L. lychni-
folia L. (nomen ambiguum!)

- clatu : *crayolis*. wh. l.c.

- depressa: "folies cassiole, etrange tonitron". S. depressa
"F. L. C."

aperta: fovea
a. fl. succ. S. livida p. ni albis Wob⁴ Fr. l. c.

Hel. ^{Ex} in alpinis (forma depressa) et juxta flumina (forma
olata) in regionibus silvaticis Lapponiae descendens.

C. occidentalis: alt. 4-15 pedalis; foliis plerumque longioribus,
 demum rigidis et laccis, aculeis, pinnatis - crenatis (fere ut in
L. Caprea). - L. retrata Rich. etea Gray l.c. p. 416. n. 12.
 Hook. l.c. p. 147 n. 9.

Rob. per American septentrionalium crummi in Libania partibus orientales Eur.
lucidi

2. Glabrescens: foliis utrinque glaberrimis. ^{lucidis} ~~laetis~~, subtus pallioribus.

rescens: foliis utrinque glaberrimis. — intermedia: frutex parvus et humilis, foliis saepe late ovatis, subconicis, acutis, nectariis
tubis, flammis flavis, pediculis capsularum nectarium vix separantibus. S. linearis & lobis. S. depressa B.

-lirida: foliis subtus liris-glaucis, capsulis glabris v. sinuatis. L. lirida & long. fr.

bicolor: folij latus glaucis haud lincis. S. depressa Fr.
(bicolor)
Ita enim d'auler, necid.

- Incolor: pigments ^(birds) Incolor
 the various shades of incandescence incandescence.

orientalis: fructus albus, foliis majoribus utrinque glaberrimis, marginibus serratis, cuneatis,
nerviis, grossioribus, staminibus foliis, capsulae pedicello nectarium ^{sepalis} fere superante. - L.

Starkiana Wied.

Aut. in Silena et prope Königberg Borussiae nec non per

Postquam mediam et septentrionales.

Et A. Gray & A. Hooker i. e. haec species in America non esse
variabiles affirmant. Formas majores foliis fere ut in S. Caprea
longis (sed multo argutioribus) obovatis et acutis, margine sinuatis,
breviter denticatis, subtus tomentosis, supra obscura viridibus in formis
minores foliis lanceolatis aut obovato-oblongis, junceas infescenti-
pellucidis, nervis luteis elevatis costatis ab eis videmus, omnes vel
i. e. S. depressa in Scandinavia ubi forma cinerascens attituerunt. ^{en-}
golem sed f. hirsuta vix lapideam attingit. Haec formas livides et
bicoloris ex America non reperimus. Aucta mascula (omnes ut
in S. Starkiana i. e. quam in ven. S. depressa paullo longiora et
crassiora, pili foliorum squamarios magis hirsuta; aucta feminea vix
quam in nostra longiores, sed capsula omnis ^{aequalis} ~~aequalis~~. Etiam in America
marginibus silvarum et pratorum inhabitare videtur.

28. *S. brevifolius* ~~Hook.~~ ^{Geyeriana n. sp.} ~~Hook.~~ ^{et crassa} ~~Hook.~~ ^{amantis} ~~Hook.~~ ^{brevi} ~~Hook.~~ ^{pedunculatis} ~~Hook.~~ ^{bracteis} ~~Hook.~~ ^{pauca} ~~Hook.~~ ^{super-}
fultis, brevibus, subantheris; capsulis ex ovata basi conicis, tenuiter scissis,
pediculis nectarium vix superante, stigmatibus sessilibus unguiformibus; fo-
lis linearis lanceolatis, planis, utrinque molliter tomentosis integerrimis.
Hb. ad Missouri and Oregon, Rocky Mountains. C. A. Geyer n. 286.

Arb. ad Missouri and Oregon, Rocky Mountain area.

Priori valde similis, sed differt habita toto, ramis interdum glaucescentibus,
foliis (novella tantum vidi!) multo angustioribus nec ulla modo obovatis,
integerrimis, sed pediculis amentis & lupo brevioribus, subulendis, nec
glandosis et capsulis e basi ^{valde} crassa amentis. Amenta mascula etiam bre-
viora et crassiora, stamina magis aureo-felicea. Habitu amentorum propri-
um ad S. repens appropinquat.

II Viriditas. Anthe apice pedunculata foliis s. bracteis ^{subulatis} ~~subulatis~~; capsule
breviter pedunculata, stylo producta; folia exsiccatione non nigrescentia.

29. S. Drummondiana Harratt - Hook l.c. p. 144. n. 2.

Species pulcherrima, ramis elongatis nitidis castaneis vel nigris, amantibus sessilibus ^{et} capsularum forma, et magnitudine et indumento sequenti proxime et vix similes, sed distincte foliis (quae nec S. laurina haud dissimilia) subtus vultu densissimo candido lanatis. Stylus in capsulis junioribus ^{distinctus} stig-
matibus bifidis equitonguis, in capsulis adultis magis productis videtur, ~~novit~~
~~autem~~ brevior ^{tamen} ac in S. discolor.

30. S. (phylicifolia) discolor - S. discolor Michx. Asa Gray l.c. p. 414
n. 4. Hook. l.c. p. 147 n. 10. - S. phylicifolia L. Asa Gray l.c. p. 416. n. 13.
Specimina ^{pleraque} ~~numerosa~~ ~~americana~~, quae attente examinavi, parum a vera S. phylici-
folia, qualis in Europa agrestibus ^{crevit} vulgarissima et semine polymorpha, ~~differt~~
eique saltem recte analogo. Talis ^{quam in nostra magna} ~~adulta~~ ~~sub magna~~, adulta rigidiore
et margine irregulariter, sed non profunde repando-serrata, stipula in junioribus
et ramis novellis vegetis sat conspicua, amantibus omnino praecoxia, capsula
angusta ~~de~~ ~~suavis~~ et squamis atris, longe pilosis. In pluribus herbariis
haec quicquid S. encyphallae confusa; nullam aliam S. phylicifoliam
ex America vidi, nisi forsan sequentem. - Novae quicquid apud nos
loca aliqua potissimum amant, quae in America regiones magis tem-
peratas inhabitat, hoc modo mutatur?

31. S. phylicoides ^{n. sp.} ~~And~~ amantibus subsessilibus elongatis, crassiusculis; capsulis
brevis pedicellatis ovatis longe acutatis, tenuissime pubescentibus, stylis
elongatis integris, stigmatibus brevissimis indivisis; foliis lanceolatis acuminatis
basi angustatis, margine integris, subtus paucioribus nec glaucis.

- latifolia: foliis tri-4-policaribus, 1/2 pol. latis, nerv. subminutis.

- angustifolia: foliis 1-2-policaribus, 1/4 pol. latis, lanceolatis, integerrimis.

Hab. in arctica America occidentali (Chvatcha Bay: Scania) 186. Hook.

In aliam speciem mihi vix obscuram! Sed ~~non~~ ita inter S. discolor
et S. cordatam intermedia ut ^{per} eadem jure ad ~~intermedium~~ ^{quoniam} vel subspeciem relata ^{esse possit}.

5. Cum priori congruit amentis longis, capsulis pubescentibus, stylo protracto foliis
longatis acutis basi angustatis, non differt: capsulis multo brevioribus pedicellatis
stigmatibus indivisis et foliis adultis vix rigidis nec subtus glaucis. Cum
S. cordata communia habet stipulas basi latiores, folia subtus venulosa
et capsulas viridiusculas. — Folia 2-3-pollicaria, amenta fere eadem longitudinis,
capsulae 2-3 lineas longae.

32. S. macrocarpa Nutt. - Ab. Book. - amentis pedunculatis foliatis, erectis, capsulis breve
pedicellatis, conicis, stylo glaberrimis, stylo medio, stigmatibus integris; foliis
sempiterne ^{glaberrimis} serratis integris subtus pallidioribus.
Hab. ad Hudson Bay: Burke.

De hac in dispositione hac specie iterum non parum sum incertus, cum habet
potissimum proxima censenda. Videtur fructus aut actus, variis glaucis.
Folia ut S. phyllipulid similissima, 1 1/2 pollicem longa, semivincum lata,
acuta, basi angustata, nervura rigidiuscula. Amenta feminea pedunculo
foliis 3-4 rite evolutis instructa infixa, pollicem longa subraciflora. Capsulae
ut in S. phyllipulid nostra, 2 lin. longae. A precedentibus longe differt
amentis pedunculatis et foliatis, cum sequentibus parum commune non
multa communio, nisi cum S. glauca formis demondati.

33. S. cordata Michx. As. Gray l.c. p. 415. n. 10. Book. l.c. p. 149. n. 21.

In Europa hortis non raro colitur Salix haec pulchra foliis magnis, rigi-
dis, basi profunde cordatis, apice cuspidatis margine acute serratis insignis. ^{et statura vix elata}
Qui hanc formam tantum inspicit vix ullam eius affinitatem cum
S. hartata nostra ^{sibi fringens} excoget, licet amenta et mascula et feminea, huius
omnino simili sibi conspiciantur. Petras autem modificationes, quibus ditata
est ~~terra~~ ^{terra} americana usque ad septentrionem summam, quoniam ^{videtur}
facile ^{intelligit} intelligit has duas sibi valde esse analogas.
(S. hartata) (in planis campis alpinis elevatis!)
et quod nos fructus variat nunc ovales (in convalibus alpinis) nunc (reperit)

S. hastata

S. cordata

nigra Muhl.

negricoides Muhl.

angustifolia Lebardeca

34. S. adenophylla Hook. l.c. p. 146. n. 8.

35. S. mytiloides L. - S. pedicellaris Pursh. *Ata Gray l.c. p. 417 n. 19*

Hook. l.c. p. 150. n. 26.

Jan. cl. Tuckerman in The American Journal of Science and Arts, Vol. XLV
 Feb. 1893. p. 34. observavit speciem americanam cum ~~planta~~ ^{specie} lapponica videretur
 congruere, nec possum ^{quin} ~~quod~~ ^{Et} ~~hanc~~ omnino assentiri. Apud nos (Species
 est vix elegantissima foliorum forma et consistentia et colore nec non cap-
 folii statim ab omnibus dignata. In America adhuc ~~maxime~~ ^{multo} magis
 luxurians videtur; folia nempe ^{maiora} et ovata. Ad. ustorum, ætissime
 se habet ut S. verticillata ad S. depolstam!

III Nigricantes. Fr.

26. S. Marclayi ^{n. sp.} ~~And.~~ ^{longipilosis} pedunculo foliato; amantibus in curvatis, densifloris, longe pilosis; capsulis glabris, quinque, in stylum longum integrum attenuatum, pedicello nectarium vix duplo superante, stigmatibus profunde bipartitis; foliis obtusato-ovalibus, brevissime oblique apiculatis, supra paucissime pilosis vel glabrescentibus, subtus pallidioribus dimidiatis, reticulato-venulosis; stipulis ovatis, acutis, serratis.

Hal. in America boreali-occidentali: Kodiak (Wardley-Hb. Torr.)
 Species ob id praecipue fere memorabilis, quod *S. hastata*, *S. nigricante*
 et *S. glauca* solum ita affinis. Cum *S. hastata* conjungit: squamis
 longe cinereo-pilosis, capsulis obscure viridibus glabris, stylo producto,
 foliis herbis subglaucescentibus et pulcherrime reticulato-venulosis,
 stipulis semique latius serratis; cum *S. nigricante* habitu, foliis exiguatione
 nigricantibus et herbis (sub lente) ^{crebre} albo-punctulatis; Cum *S. glauca*
 capsulis subsessilibus, ~~an~~ pedunculo foliis 5-6, ceteris subsimilibus instructo,
 et habitu consuetudine foliorum. Ob hanc varias affinitatem locus
 in dispositione methodica difficilis determinatu.

TV. Argentæ Fr.

37. L. itchenensis Sans. & Dec. Leeb. fl. riss. III. p. 609.

Pub. in America boreali-occidentali: Sitcha (Mertens) Oregon (Scales) et
juxta Columbia-riv. (Brid.).

Jam sub S. brachystachya observari specimen S. titchensis in herbario Hookkianis,
S. Scouleriana appellata, cum aliis spec. confusa.

38. S. grisea Marsh. - Asa Gray l.c. p. 414. n. 6.

Locus in dispositione methodica ambiguit. S. pub. nostrae primo tuberculatis, ob
id ad Helices interdum ducta, ab eis ⁺ staminibus diversis et capsulis pedicella-
tis longe diversa. Antherae, prodeque masculae, parvae, subrotundae. Maxime
affinis est sequenti, et ob id ^{per eam} S. repens noveritur.

39. S. petiolaris M. - Asa Gray l.c. p. 415 n. 7.

Antherae et foliis praesertim Juncoidibus S. repens L. vel potius S. osmariaefolia L.
est similis. Capsulae, quae in S. grisea obtusissimae et stagnatibus sessilibus
coronatae, in hac ovato-obtusae stylo ~~evidenti~~ distincto apiculatae; saepe et in
priori obtusae. truncatae apice summo atrato, in haec ovatae, saepe
infuscae.

40. S. humilis Marsh. - Asa Gray l.c. p. 414. n. 5. S. Muhlenbergiana
Barrett. & S. conifera Muhl. sec. Asa Gray.

Et S. cinerea et S. benthiana quasi composita videtur. Ab utroque foliis
antheris et capsulis aliena. S. trietis, huic maxime affinis, apice
differt foliis utroque opaco cinereis, antheris femininis subglobosis et
capsularum stylo evidenti.

41. S. trietis Ait. Asa Gray l.c. p. 413. n. 2.

- microphylla: foliis semimucronatis, ^{entis} antheris globosis. Fruticulus parvus.

42. S. repens L. Asa Gray l.c. p. 418 n. 21. - S. fusca (L.) Hook. l.c. p. 151. n. 28

* ad S. arbusculam referenda.

Nullam usquam S. repens in America in herbariis vidi. S. repens Michx. Fr. Post. (S. fusca
Oakes), quoniam Tuckerm. l.c. p. 35 S. antiquum Ehrh. habet, ab utroque diversissima. *

43. S. gracilis And. = S. rosmarinifolia (L.) Hook. &c. p. 148. n. 13. —

anthesis lateralibus, bracteis parvis, deciduis suffultis; capsulis ^{costis} cylindricis, obliquis, tenuiter
griseo-pubulis, pediculis nectarium dies superante, squamis linguatis apice infuscatiss.
filis brevissimis, filamentis duplo longioribus integris; foliis anguste linearibus planis
interprimis, basi longe angustatis latitudine fere decies longioribus, subtus plus minus
glabris.

5

111. ad Satchatshan (Drummond, Dr. Richardson).

* rosmarinoides: foliis apicem versus serrulatis, marginibus acutiusculis, subrevolutis.

Dec. Durham County (W. County).

Ab omnibus mihi cognitis speciebus bene dignoscitur foliis et capsulis. Dissimili-
da e S. vagante et S. angustifolia videtur. et S. rosuarini folia certissime longe
recedit capsulis ^{valde} brevioribus, a S. vagante foliis linearibus elongat elongatis.

recedit capsulis longissime pedicellatis, a
 Varities, ut iam vocem S. gracilis ~~habere~~ S. romaniifolia ⁴ Horati? inscripta
~~probita~~, multo magis ut S. romaniifolia ~~montana~~ ^{gram} accipit. Obstant autem capsulae
 longissime pedicellatae!

E. Chamelir Fr.

I Frigid Rock.

44. S. glauca L.

Hec species in Lapponia et Siberia. ~~et~~ innumeris formis (S. lanata, nigricanti, myosotis
 affinis) ludus vulgaris. Sima et jam in foliis agris longe ^{aliqua}
nitida et alia ~~affinitas~~ ^{se videtur formis} in arcticis regionibus Americae habitare extenso
 facit (S. sericea, S. alba & S. eldagnoides Sw.) in parte occidentali
 videtur, similis est. Specimina tamen ex Seemann in parte occidentali
 et a Lyall in Disco Island tamen nostris tamen ita congruent, ut de ^{affinitate} ~~identitate~~
 non dubitare liceat. Talia nunc utrinque multum villosa et incana, nunc demum
 puberula, amenta semper foliato-pedunculata, capsula breviter pedicellata. Hinc
 certissime ut forma tantum associant.

S. villosa (D. Don?) Hook. & C. p. 144. n. 3. foliis tenuibus hirsutis.

villosa - S. villosa
glauca, sparse pilosis cleveo-venosis, stipulis subpersistentibus, lanceolato-linearibus, amantibus sat longis erectis laxius ciliis, subantheris, capsulis vix domum demissis.

Ab omnibus S. glauca formis itam pappidis differt lumen subterraneo, ramis
^{sub}prostanti ^{vel} ascendenti adscendentibus, foliis ap. brevioribus apice obliquo, rigiosis
 (ut S. myrsinitiden sine eo respectu fere simulat) subtus ~~venis~~ ^{venis} elevatis
^{rugulosis} ~~dentatis~~, demum glabratis sed margine fere semper ciliatis, amentis laxioribus
^{omnino} ~~costatis~~ ^{reitis} foliis pluribus suffutis et capsulis distinctis pedicellatis
 Hisdem notis a S. subcordata recedit; a S. rhamnifolia et S. ornifolia foliis
 utrinque acutis, pamentis longis et foliatis, foliis velutinis vel sattem
 ciliatis, ^{capulis villosis.}
^{plumisque}

48. (?) S. pseudo-myrsinites And. - S. myrsinites (L.) Hook. l.c. p. 151. n. 29.

Quum vito laticare nequeo
 quam speciem ill. Hooker
 l.c. potissimum intellexit,
 specimen quod in herb.
 Eius asservantur et mihi
 valde dubia videntur, desqui-
 benda puto:

In herbis Hooker et formis hinc dubio itam in Flora quidem boreali-americana,
 sub hoc nomine confusa sunt plures species, quas seorsim describendas, cupio:

S. pseudo-myrsinites A. amentis lateralibus foliis paucis bracteatis erectis, elonga-
 tis densifloris; capsulis pedicellatis ~~ovato~~-conicis glaberrimis testaceis, stylo distincto
 stigmatibus brevibus, pedicello squamam duplo et nectararium quadruplo superante;
 foliis oblongis-lanceolatis, breviter petiolatis, tinctis membranaceis, utrinque glaberrimis,
 subtus subpallidioribus costa et nervis prominulis nervosis, marg. crebre ^{et} ~~repente~~
 serrulatis.

Hab. "on the grand rapid of Saskatchewan" et in "Rocky mountains".

Fruites parvis 1-3-pedatis, ramis divaricatis, foliis 1 1/2-pollicibus vix ~~longioribus~~
 latij (habite for S. myrsinitiden nostrae sed minus conicis, vix ita venulosis
 et anguste serratis), amentis (fere ut in S. physicifolia) ^{capulis testaceis} hirsutis. - Vix his locis!

• S. ichnostachya ^{brunijuncta} ^{caustiflora} A. amentis breviter pedunculatis foliis 3-4 nervatis suffutis,
 erectis brevibus; amentis capsulis ovatis glaberrimis viridulis, stylo distincto,
 stigmatibus brevissimis connatis, pedicello squamam aetiam apice crispato-hispitam
 duplo et nectararium parvum quadruplo superante; foliis angustis ovalibus, utrinque
 glabris, cespigatione nigricantibus, marg. serrulatis.

Hab. "Fort Franklin, Mackenzie river" Dr. Richardson.

A vera S. myrsinitide longe distat, habita potius S. (cordata) hirsuta vel immo S.

arizica ^{major} affinis. Fruticulus parvus; rami vix pedales; folia hemipetala, 2 lin. lata, utraque punctis albis creberrimis subpallidiora; amantia hemipetalica, rachis puberula; capsula minuta, viridula.

49. *S. arbuscula* L. (see the next page!)

49.50. *S. rhamnifolia* (Pau?) Hook. & Arn. Beech. Voy. p. 117. t. 26. Ledeb. fl. ross.

III. p. 512. — *S. Uva Ursi* (Psk.) Hook. l.c. p. 152. n. 38 (p.p.?). — *S. myrtilloides* Chamisso Linnaea VI. p. 540 (ad hunc locum Laurentii). — *S. myrtilloides* f. form 1, 2. t. Cham. l.c. p. 539. — Huc forsitan etiam pertinet *S. unalaschensis* Cham. l.c. p. 541, quod tamen, nostrae *S. hastata* - *humboldtii* non dissimilis (sed folia integra!), *S. rhamnifolia* et *S. ovalifolia* quodam modo conestit.

Nomen *Salicis Uva Ursi* Psk., quod in herbario Hook. a Barro huius speciei etiam impostum ^{est} / plene rejiciendum: 1) quod Psk. ipse speciem pulchram et nunc valde incerta descripsit; 2) quod speciem pluribus aliis ex montibus albis et Labrador, sed valde recedentibus, fere eadem ^{+ America arctica,} jura (si meram diagnosis Psk. respicias) datum fuit. — Cum speciminibus *Salicis rhamnifolia* a Hook. l.c. primum descriptis et depictis nostris non male congruent, sed recedunt nonnihil folijs vix spatulato-obovatis, margine subintegris, capsulis crassioribus et brevius pedicellatis. ^{quasi} ^{est} quasi inter *S. myrtilloides* (cui capsulis subfinitis) et *S. arbusculam* (cui folijs) disponenda!

50. *S. ovalifolia* Trautv. & Ledeb. fl. ross. III. p. 620. — *S. Uva Ursi* (Psk.) Seemann

Vag. of Herald. p. 40. — *S. myrtilloides* forma 4 Chamisso l.c. p. 539.

— *major*: ramis majoribus elongatis; foliis majoribus elongato-obovatis, acutiusculis utraque minus glaucescentibus; amantibus 4 crassioribus; capsulis majoribus. — *S. myrtilloides* forma 3. Chamisso l.c. p. 539.

Ab. ad Sinum Eschscholtz et Cap. Espreberg (Chamisso & Espr.) ^{in insula S. Pauli (Chamisso), in} America,

occident. - boreali (Seemann).

A ceteris facile distinguitur ramis flabellatis procurrentibus, foliis $\frac{1}{2}$ - $\frac{3}{4}$ pollicum longis, vix per eadem latitudine, ovalibus v. subrotundis, glabris, rigidiusculis, sub-

7th Europa ~~seems to~~ ^{de. Wimmer classifies}
 species as L. repens et L. amica
 (que foras in America non inventa!)
 polum hybridum habent.

54. S. Cuthbertii Tuckerm. (Silv. Tenu. 45. p. 36) S. Usa Gray l.c. p. 418.

- major: foliis ovato-ovalibus fere semipollicaribus, acutis, ciliatis,
longitudine pollicaribus

- minor foliis 2 lin. longis atque angustioribus, oblongis, acutis semipollicaribus.

In speciminibus a me examinatis (et a Tuckerm. ipso communicatis)amenta
super terminalia; an. mascula (quorum stamina ~~sem~~ singula describentur)
non vidi; nonne ab statura humilissima et compacta depauperata? Cum
S. retusa Europae meridionalis plane nihil commune habet; potius modificatio
maxime aliqua S. myrtillifolia (S. pedicularis Arn.) esset indicanda!

55. S. myrtillifolia myrtillifolia n. sp. acutis in ramulis annotinis terminalibus,
foliis occultatis, vix semipollicaribus; capsulis brevissime pedicellatis minutis, late
viridibus glaberrimis anguste tunicis, pedicello squamam angustam apicem nigram
glaberrimam subdante, stylo subullo facile caduo, stigmatibus brevissimis
integris; foliis semivivacibus longis, 2-3 lin. latis, ovalibus, utrinque pallide viri-
dibus et glaberrimis, margine ^{crenulato-} ~~sinuato~~-^{tinnitate} serrulatis, novellis (nigrescentibus

Hab. Rocky mountains, east side, lower situations (Hook.).

Fruticulus laevis parvo saepe ramoso, ramis strictiusculis fere omnino
ut in Myrtillus niger, cui insuper folij pure viridibus, tenuibus, marg. crenulatis
ovale-jubutundis eximie similis.

56. S. reticulata L. - Hook. l.c. p. 151. n. 33.

avertita (Poh) Hook. l.c. p. 152. n. 35 - foliis ovatis petiis longis ~~distichis~~
vix biculis

- grandifolia: frutex fere bipoliaris, ramis strictiusculis, foliis 2-pollicibus
longis, ~~supra~~ supra medium 1 1/2 p. latis, acutis fere bipollicaribus,
petiis ~~seriis~~ ~~demum~~ subtus demum omnia glabris. (Ethan in Italia)

- parvifolia: fruticulus, ramis ascendentibus; foliis oblongo-ovalibus
v. ellipticis, subtus densissime albo-turcis (Ethan in Helvetia)

b) normalis - S. reticulata L., ^{quae} ~~qualis~~ in Europa alpebus vulgaris.

c) nana - S. nivalis Hook. p. l.c. p. 152. n. 34. - pygmaea, ramis sub-

digitalibus v. pollicaribus; foliis 2-4 lin. longis latiusque brevibus etiam omnino
nudi; cavis albis pulchre venulosis reticulatis, amentis linearibus & floribus
3-6 compositis, squamis obovato-rotundatis glabris venosis. — (Etiam in
Grönland & Spitzbergen)

Quae hybridae formas etiam sponte facile procreatas crevit formam grandifoliam
S. septata s.d. c. S. reticulata et S. lanata, et S. viminalis s.d. c. S. reticulata et
S. herbacea ortum conjiciat. Formis cinnamomeis hae extremae inter se coniunctae
nullo modo specie distinguere possunt.

57. S. herbacea L. A. Gray. l.c. p. 418. n. 22. Hook. l.c. p. 153. n. 40.

58. S. polaris Wbg. Hook. l.c. p. 153. n. 41.

From this list of the North-american willows (from which I have excluded those
more tropical forms growing in Central-America, the South of Mexico and Texas
and the cultivated ornamental S. babylonica) we may find that they amount
to a number of 88 ^{species} ~~forms~~ (or rather 89, as two are proposed under S. myrsinoides),
while the Scandinavian — and almost all the European — very probably do not
exceed 48. These 89 American species, when compared with the European as to
their affinities, may be classified in the following five groups:

I. Those which are common to the old and the new world:

a) perfectly identical though very often more variegated in America than here.

α! Transplanted from Europe for cultivation:

<u>S. alba</u>	<u>S. fragilis</u>	<u>S. acutifolia</u>
<u>S. viridis</u>	<u>S. purpurea</u>	<u>S. viminalis</u>

β) Arctic or alpine species

(<u>S. caesia</u> ?)	<u>S. lanata</u>	<u>S. arctica</u>	<u>S. vagans</u>	<u>S. reticulata</u>	<u>S. arbuscula</u>
<u>S. lapponum</u>	<u>S. glauca</u>	<u>S. agrestis</u>	<u>S. myrsinoides</u>	<u>S. herbacea</u>	<u>S. polaris</u>

γ) So analogous with European species, that they (at least most forms of them) can not
be distinguished from ours. — From the middle part of America.

<u>S. lucida</u>	analogous to	<u>S. pentandra</u>	<u>S. capronides</u>	analogous to	<u>S. caprea</u>	<u>S.</u>
<u>S. virrorata</u>	"	<u>S. daphnoides</u>	<u>S. cordata</u>	"	<u>S. hirsuta</u>	

6) Having forms very little differing from the ones

(*S. arica*?) *S. glauca* *S. arctica*
S. lapponum *S. lanata* *S. alpestris*.

II. Those which, very widely distributed over the middle parts of America, seem to be analogous with European species, that they (at least some forms of them) can not be distinguished from them, or may be considered as subspecies.

S. lucida analogous to *S. pentandra* *S. physocarpis* anal. to *S. physocarpis* *S. capensis* anal. to *S. caprea*
S. cinnamomea , , *S. daphnoides* *S. cordata* , , *S. hastata* *S. phlebophylla* , , *S. retusa*.

III. Those which certainly in character differ so much from European forms that they may still be considered as species, though belonging to types, which in the old world produce fewer forms:

<i>S. Fendleriana</i> related to <i>S. pentandra</i>	<i>S. humilis</i> }	related to <i>S. repens</i>
<i>S. Wrightii</i> , , <i>S. alba</i>	<i>S. stricta</i> }	
<i>S. amygdaloides</i> , , <i>S. amygdalinea</i>	<i>S. gracilis</i> , , <i>S. rosmarinifolia</i>	
<i>S. criscephala</i> , , <i>S. daphnoides</i>	<i>S. subcordata</i> , , <i>S. glauca</i>	
<i>S. brachystachys</i> , , <i>S. ovata</i>	<i>S. pseudo-myrsinites</i> }	} <i>S. myrsinites</i>
<i>S. discolor</i> }	<i>S. cariflora</i> }	
<i>S. macrocarpa</i> }	<i>S. Luckleyi</i> , , <i>S. myrtillifolia?</i>	
<i>S. Guyeriana</i> , , <i>S. vagans</i>		

IV. Those which may also be regarded relative to types in our regions, but with greater reason than the above enumerated must be considered different, and peculiar.

<i>S. Bigelovii</i> } belongs to the type of <i>S. daphnoides</i>	<i>S. condida</i> belonging to the type of <i>S. lapponum</i>
<i>S. lanolepis</i> }	<i>S. Drummondiana</i> , , , <i>S. laurina</i>
<i>S. Coulteri</i> }	<i>S. adenophylla</i> , , , <i>S. hastata</i>
<i>S. Hookeriana</i> }	<i>S. Wardlawi</i> , , , <i>S. glauca</i>
<i>S. speciosa</i> }	

V. Those which certainly form types peculiar to the American regions:

1. *S. longifolia*, *S. serotina* (+ *Hindiana*) and *S. talifolia*. Correspondents in Europe

S. riparia and its varieties. - To which may be added *S. nigra* and *S. longipes*

belonging to a type peculiar to the southern or tropical countries.

2. *S. Sitchensis*, *S. grisea* and *S. petiolaris*, ampelodes, as it were, in America

for our *S. mollissima* mixed with *S. repens* (Obs. *S. angustifolia* Desf.

is by Prof. Wimmer and others considered here a hybrid of *S. repens* and

S. vinoides!)

3. *S. rhaphanifolia*, *S. ovalifolia*, *S. glacialis* and *S. myrtillifolia* purely arctic forms,

only corresponding with several from the northern parts of the cold Siberia.

From all this we find that of the 58 species growing in North America

there are
 12 identical with European species

6 nearly so.

6 very analogous to

15 distinct species but belonging to the same types as the European.

9 almost peculiar to America

10 really

If on the other hand we examine the Scandinavian species (in order to find which of them are wanting in America, we see that such are

1) 8 species, more or less generally cultivated in the whole Europe and probably of a more southern origin:

<i>S. undulata</i>	<i>S. rubra</i>	<i>S. lanceolata</i>	(<i>S. stipularis</i>)
(<i>S. hippophaefolia</i>)	(<i>S. mollissima</i>)	<i>S. Smithiana</i>	(<i>S. holosericea</i>)

of which the four species of some botanists are considered hybrids.

2) only one species, which grows wild in our country and here as in Switzerland forms such a quantity of varieties, that Schleicher has formed nearly 100 species

of this one, viz. *S. nigricans*, a really European species. (*S. canescens*, *S. viridifolia*

S. ambigua by many botanists are thought to be hybrid forms) - To these may

be added from the rest of Europe *S. hibernica* (peculiar for Sicily) *S. glabra*

peculiar for Austria alps) *S. grandifolia* and *S. longipetala* (almost peculiar for Switzerland)

(and *S. pedunculata* in Italy and Spain)
S. riparia and *S. glabra*

If ~~now~~ we now sum up the results drawn from our computations, namely, that of the 58 American species 24 are identical to the European, 24 belong to the same types and ten only, western or arctic forms, seem to be peculiar to this great continent; and further, that of the Scandinavian flora only one wild growing ^{or type} species is not yet found in America (a type which in fact looks as composed of almost every one else) but 48 more or less related species or types ^{are} common to both the old and the new world - in which (America) they are more luxuriant and varying and where we also find a number of other types -; it seems to me, that we may conclude, that America is the chief abode, and perhaps the native country of the willows; and thus it may be considered ^{as} a duty for the American botanists, to apply themselves to this genus and its intricate forms.

Science, who does not like hypotheses as much as facts, has not yet got sufficient materials to tell us if and by what means and in what ways the original species first were spread from single centres over the distant parts of the earth; but as we know from the arctic and northern regions bear upon that fact, that their vegetation is very homogeneous. I have tried by these remarks to prove, that with regard to willows, that there are many links connecting Europe and America.

Stockholm the 6 Mars 1858.

Honoured Sir!

According to my last letter I now ^{take} the liberty to send you the list of the North American species now known to me, hoping that you will be so kind to let it be known in the way you may think most proper. If it is to be printed anywhere I only wish to have ~~some~~ copies sent to me; and I sincerely beg you to look it all over not only to destroy some of the greatest faults I have committed against the beautiful English language, but also to make all corrections you have the greatest experience to find necessary. Although I have made my best to write English - not so "correct" as in a letter (as this f.i.), I am very persuaded, that you will laugh very often to my English; - but if once you send me any little communication for Swedish papers I will ^{give} ~~make~~ you the same service I now ask from you.

Perhaps you will not agree with me in the conclusion I have proposed, that a great part of the American willows are, if not quite identical, yet very allied or analogous to ones in Europe. I dare not say that you or any other may be alive in me as any authority; but I must sincerely assure you, that I have treated the matter with the utmost conscientiousness; and, looking over masses of specimens (some bad, some well collected) it has been impossible for me to get another opinion. But this I don't think the most essential part of my treatise; as much I consider 1) to refer the American species to the types, with which the certain-ly are more or less allied, that they may be considered as links in the system of Salix; 2) to put the foreign species in an arrangement adopted here by all who have studied that genus and found it a natural one.

There is yet one thing I would ask you. We are here very strictly prohibited with American Works. Experience is teaching the willows it has been impossible to me to procure such valuable works of Foreign Flora of New York (under the title of the history of the willow) and especially the most American types, and especially Horrevert Salixes americanae. Our library is very poor in American literature and I sincerely beg you to procure at some price (and too high) what you may think good works.

The ~~little~~ space has not permitted me to give all reasons why I consider Your species as I do. In many parts there are many doubts left open; and I thought to your kindness that You will, through Your friend, communicate such materials to me, which may fill up these lacunae. I have described some new species; some of them are founded on few and very often bad specimens; but, after all, I think they are good species, as I never have seen such things before. I am very firmly ~~and~~ persuaded that You have in America a much larger quantity of good Salices as yet ^{as} known; and perhaps forms may be detected, by which any of the ones proposed must be reduced; but this loss of some species is an advantage to science.

At first I only thought to send You a list of the species; but fearing that the names ~~not~~ should be well understood I have preferred to give a 'catalogue raisonné'. There only You must excuse my ~~little~~ ^{few} notes and remarks. When once I get more from America I will ^{make} ~~give~~ a better work.

I had much more to say You ~~about~~ ^{of} this matter. But I hope you will take it, not as anything worth much consideration, but as a token of the great esteem Your kindness has called up in me. It must be considered rather as a private communication to You, submitted to Your judgment and depending on your kindness, than a work with pretensions to be printed. I have done my best now; but it can be yet better.

When Your time will permit it I should be very happy to receive from You a few lines, informing me of Your acceptance of this letter. And hoping that You will in future permit me to communicate to You. I have the honor to remain

Yours very obliged

N. J. Andersson.

To Professor Asa Gray. Cambridge.

Honoured Sir!

I have much pleasure to inform You, that I have received yesterday that magnificent Atlas to Your History of the United States Exploring Expedition, which You have so liberally sent me. Really I feel myself much ashamed ^{to accept} of this costly present, so much more as I know very well that it will ever be impossible for me to show you how much indebted I feel myself to You.

In looking over these beautiful folio tables, these highly artistical performed figures, I cannot but think with a certain degree of pity on that little work on the History of my Voyage, just now under publication. But as your work is worthy

of United States and ~~their~~ Exploring Expedition, so the mine has
a due reference to the little garden and my short tour. I
therefor beg You, when I take the liberty to send it to You,
only consider what we are and what I can do.

I should be very glad to hear you had received my
last letter, where I enclosed some remarks on north-american
willows. And was happy You should make me if You could
give approbation to this little essay. This summer and next
winter I shall be busy in working out the Salices for
Dr. Carlsson's program, and I look with much eagerness for
that collection of willows. You will be kind to communicate
with me.

As I see in our herbarium that You sent to
Mr. Wikström many plants from America I am very sure
You have received some collections from Sweden in return.

Nevertheless it will make me very happy to prepare for
You the next month a collection. If there is anything

you do not wish to keep for your own herbarium, perhaps You
will be so kind to give it to some young botanist, who
is desiring to exchange plants from Europe. Our collections in
Stockholm are especially wanting plants from North-America;
and I should now consider it as a great service due to us,
if You could bring me in correspondence with ~~any~~ any bo-
tanist in your country for the above-named purpose.

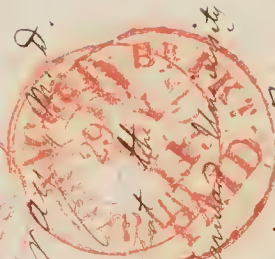
Permit me, honoured Sir, now again to express to you
all sentiments of gratitude Your kindness and liberality have
caused in me. I should be most happy if I ever could
any opportunity to return to you any part of that, you
have given to me.

I have the honour to remain

Your most obliged

Stockholm the 22 April 1818.

N. J. Andersson.



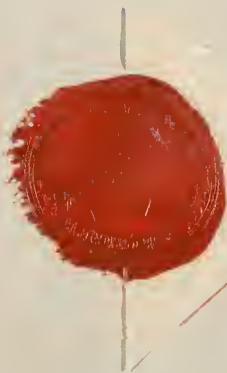
To Mr. Asa Gray, D.
Professor of Natural History
Harvard University
Cambridge, Boston
United States.



Dear Sir!

I have been much charmed to receive your kind
letter of the 12 April, and to see that you have
got already my remarks on the north-amer-
ican willows. Surely I am very obliged to
you, that you have been pleased to accept
them. It will be of a high interest for
me not only to have your own collection
but also all the ~~other~~ pamphlets you send
me, where I also find something about the
willows by Torrey.

As I already have written I have got
your magnificent Atlas of U. S. Expl. Exp. Botany.



Wm. A. Gray

Professor of Natural History at

Harvard University Cambridge

Boston United States

Now - ~~when~~ as You have been so kind to send
another copy - ~~as~~ I ask: what to do with it?
Do you wish to present it to the Royal
Academy of Sciences, or to be sent back
again?

I should think it very ~~very~~ improper
to try to say you have very obliged I
feel myself to your liberality in commu-
nicating me so many useful and precious
writings of Yours. Especially as I know
how very little I can find You again.

As You have the kindness to ask me,
if You have sent your Genera pl. char. Bot.
or. - I must say no - but I am almost
ashamed to suppose that You will find it.

You should oblige me and the Academy
very much if You could procure, as any
American botanical books. If Michaux
types it to be had at 12 dollars I should
be glad to receive it. Also Torrey, from at
15 dollars or. Another time I will send
You a catalogue of American books we have;
but I fear they are very few.

At least You have told me that
will find Gramineae - I wonder if You
will not soon be tired to give, and only
give.

You will find how many reasons I have
to remain your
most obliged

Stockholm 14. Maj 1858.

N. J. Anderson.

Free
G. M. B. B. B.

Mr. Asa

Gray

Professor of the Natural History of Animals

University, Cambridge,

Boston

United States

Dear Sir:

You must be kind enough to excuse
me that I have not before acknowledged
the happy and pleasant receipt of the
case You have sent me through Mr.
Röding in Hamburg. I have been very
glad to possess your beautiful Collection
of Salices, and I hope to send it back
again very soon, with some remarks on
the Determinations.

I thank You also most sincerely for the

books you have now again given to
me. As you have sent another copy
of your beautiful and remarkable Atlas
I try to ask you, If you permit that
it may be handed over to the
Roy. Acad. of Sciences at Stockholm.

The pamphlets for Friis and Agardh
have been sent owing to the address.

I now prepare a collection of Swedish
and Galapagos plants which will, I hope,
reach you very soon. As we especially
want North-American species you should
make us a great service to give

me the address of some Botanist, who might
exchange the flora of his country to those
from the country of Linnaeus. I can promise
a large and beautiful collection.

I shall be very glad to hear from you,
and especially so if you will give me some
hope to see, in the future, your Populi.

Two of my family happy changes have
great disturbances. A little son was born to me
the last month, and this little man has already
grown to some importance in the household-business.

I remain for ever your most obliged
and respectful

Stockholm th. 5 July 1858.

N. J. Andersson.

The plants are chiefly from the ~~neighbourhood~~
environs of Uppsala, and may therefore be considered
as types for the Linnean determinations. As
I have noted what I was told, I can com-
municate later a complement-collection.

From St. Petersburg I have obtained very
rich collections of willows from Siberia and the
Russian possessions in America. Having studied these
forms I hope to enlarge my knowledge of this
Genus very much.

Pray let me have to soon as possible
Barratt's Salices, Nuttall's Sylva and what work
of Michaux and Torrey you can procure. By your
notes I see how much yet is wanted!

If there is anything I might be happy to
do at your command, I assure my willingness.

I am your

N. J. Andersson.

Stockholm 2. 7 September 1858.

Y.
Honoured Sir!

It is now some weeks since I had the pleasure
to receive from You 20 copies of my note on the
north-american willows and also Your admirable Genem.
How much I am indebted to your generous kind-
ness, I cannot but fail to tell you as I would
do it. In adding some corrections to my bad ^{style} english
You have favoured me much; but as there are
any few errors in the latter I beg to send
You a list of them. I am not Professor of Bot.
in the University of Stockholm, but at the Royal
Academy of Sciences and keeper of the herbarium.

I should wish to send you a collection of Swedish plants; but as you might have received many from Fries and Wikström, and as you have told me to have Grönvick and Gyneria, I only have put these species aside for you. The collection is not yet a very complete one; but I will take another opportunity to get it richer.

I now send this week - a case under your address to Boston, containing 1) these Grönvick and Gyneria; 2) a collection of plants from Galapagos islands; and 3) a collection of upwards 800 Scandinavian species.

The Galapagos plants I hope you will find acceptable. I have taken them out from my own herbarium, as it was impossible for me otherwise to procure such a collection. You are the first and the latest botanist who have received

these plants to complete; but I yet I don't know how to quit my great debt to you. Probably you will find these species worth to be added to your herbarium. I also have prepared a very small collection for Mr. Engelmann, which I hope you will find any opportunity to forward to him.

The collection of Swedish plants you may think inferior to those possessed by you before; but I hope there will be found any young botanist, who will keep them, ^{and give me} ~~send me~~ north american plants in return. With exception of these we have in the time of Wikström, obtained from you, our north american collections are very poor, and I should be very glad to hear that you would procure me a correspondent in America for future exchange. What I now send may be considered as a beginning towards it.

Sir:

It is already some weeks since I intended to write to You, thankful for the arrival of the 20 copies of my Notes upon the north-american windows and the 2 volumes of your admirable 'Genes'. But I have been obliged to wait till I could inform You, that I had sent that case, which I hope you will receive in safety in short a time. The ship is Marathon, Capt. Nauyke, addressed to Mrs. Morris Wain & Co Philadelphia.

I was only the evening before informed that the ship was ready for sail, so I was much hurried in packing what just was ready. Otherwise I might have added some plants and a few books; as it now is I am obliged to postpone it to another opportunity. Probably this autumn I may find any occasion for it.

The case contains 1 a collection of upward 300 Swedish plants, 2) plants from the Galapagos islands. I have sent only to two other private men such a collection of these rare plants, viz.

* I hope You will inform them when that a case, addressed to You in London, is left on the board the ship, and that it may be sent to You from Philadelphia.

to Moss, DeCandolle and Sir W. Hooker, and you is the completed.

It should make me much pleasure to hear that You have been pleased to obtain these plants, which probably will for a long time be wanted in the most herbaria. - I will very soon send you my Form of the Galapagos island; the tables are not yet all ready.

I intended also to send to You a complete set of Swedish plants; but as I am very sure that You have obtained all I could give You, from Wikström or Trieb, I only have put in the case Gramineae and Cyperaceae, which You had especially wished for me. As I have noted those now sent to you. I will next time make this collection complete.

As to the other Swedish plant it is my hope that You may find some student or young botanist, desiring to have the type of Linnaei determination from the country of Linnæus, and willing to give us plants from the "Great Western" in return. During the time of Wikström you liberally sent to the Stockholm herbarium plants from the northern America; but these are the only we have from these regions, and You should make me very much obliged if You would procure us any correspondent in your

own country. When some duplicates from Brazil and from various other countries, visited during my voyage in Eugenie, will be brought in also, I hope to communicate to You richer collections.

From the botanic garden in St. Petersburg I have obtained an immense case, containing 46 large bundles of Salices from all parts of Russia. Amongst them I have found many species, yet totally undescribed, from Siberia and Northern America, which will add much to the knowledge of the arctic forms. As soon as possible I will, as You have wished, send you a short synopsis for your Manual.

It should be of great use for me to have Horreus Salices (now cited in the work of Hooker) and the works of Nuttall & Torrey. May I hope, that You ~~book~~ will take the pain to procure them for me at any price and send them to my bookseller Leipzig?

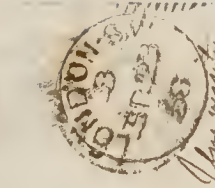
In my observations on the willows I saw you hand in the preface, making corrections to my bad English; but in context there were plenty of errata left, and I include a list of the most appraising of them.

Your most obliged

N. J. Anderson.

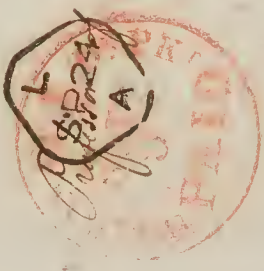
Stockholm 2. 12 Sept.
1858.

This is also in the case a little parcel from St. Engelmann, St. Louis, Missouri, to which I hope you will find any occasion to forward it.



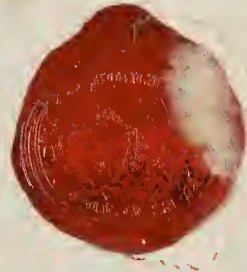
5 CENTS

Mr. Asa Gray



Natural History at the Harvard University

Cambridge
near Boston
United States



the 1.

Dear Sir,

This very day I received your kind letter of Sept. 30, and I am very sorry to see that you have not obtained that letter, where I informed you that I sent to Prof. Steentrup at Copenhagen the other copy of your magnificent atlas. I trust that it may have arrived in safety to Copenhagen, as it was sent immediately after your directions were known to me.

In the newspaper I read yesterday that the schooner Marathon, Capt. Vandek, which took on board that case, I sent to you,

has lost her anchor &c. and been obliged to go to Amsterdam to procure what was "missing". I am very anxious to hear if that little case has been thrown over board or otherwise got any damage; it is the first time I lose anything on sea, but now I could not get the information that I had failed to communicate anything to You.

You are most kind to tell me that you have succeeded in procuring for me that precious work of Nuttall. It will be an joyful day, when I may receive that book.

I thought I had, twice, informed you that I had got 20 copies of my little

treatise upon the Amer. evidences, and that they are quite sufficient to me. This autumn, when the Academy is sending out ^{its} printings for the foreign Societies, I also will add some copies of my small publications for you, which I hope you may obtain through the Smithsonian Expedition.

I am also very glad to hear that there is any young man, willing to receive my Swedish plants and give me them from North America. Now I am very sorry that the specimen I spent you is a hurry even not good enough; but I assure you that another time I will make it better again.

Believe me for ever
obliged

Stockholm 2/10 58.

N. J. Andersson.

Dear Sir!

Again You have favoured me with a letter and with kind communications of the most valuable *Folia*, which have already been sent to Mr. Hook. I trust You will find that young men worth these contributions to his monography of that genus.

I have compared the *Trichies* from Java, You sent, with specimens of *Thunberg* in our herbarium. *Polypodium lineare* a specimen of *Thunbergianum* satis differt: stipite in fili magis crassitie subtilissime pubescente, fronde triplo brevior in stipitis basi non decurrente, costa multo tenuiore, marginibus non revolutis, venis prominentis. Proxima ad *Polypod. lanceolatum* L. accidit. I send You a specimen of the original *Thunbergian* plant.

Pteris pilosoides Thb. (*Nephrolepis nummularifolia* J. Sm.) nostra speciosa et *Hab. deformis*, frond. fertit. bipinnatifida frond. sessilibus. I send also a specimen of this.

Trichomanes strigosum Thb. (= *Davallia strigosa* Sw. am. bot. p. 69. Kunze in Bot. Zeit. 1828. s. 522). Cum spec. *Thunberg.* ad bene congruit, sed pinnulae etiam latere exteriori magis fissae. - You will have a pinnula here enclosed.

Trichomanes hirsuta (Dav. *hirsuta* Sw.) a specimen nostra est longe recedit. (*Polypod. lacorum* Th. was the form here referred to Anderson is confused in some way. see.)

Dr. Schimper is very rich in species and specimens from Java and his descriptions from *Thunberg* are the old species are to be found here, so if You have anything to know from them I shall be most happy to procure You all informations.

Mr. Asa

Gray



Professor of Natural History at the Harvard

University, Cambridge, Massachusetts

near Boston

AMENCO,

(United States)



- glaucis, fultus pallidioribus.
 Rub. juxta Nagasaki & alibi: Thunberg. ~~(Specimen adjectum in herb. herb.)~~

Abs. Specimens hic descripta, in herbario proprio Thunbergi, Upsalæ asservata, hic minus congruit, foliis

Obs. Specimina hic descripta, in herbario p. p.
a Salic. babilonica - cui capsulis et squamis carum fere omnino congruit, foliis
brevibus exat^{late} lanceolatis, acutis et sat dense serratis, serraturis evidenter
productis, amantibus eximie membris et confertis, longissimis et laevissimis
tuculenter differt. In herbis autem ex Halimici et Musci pariter affinis
specimina plerumque foliifera vidi a Japonia a Thunbergio reportata, sine
ullo dubio ad S. babilonicam veram referenda, sed S. japonica etiam a Thunbergio
inscripta. Quia quam ita sint de vera specie S. japonica Thbg. non
prosum sum incertus.

Sub. ad Yokohama Japonia
leg. Williams & Morrow.

integra vel ~~subintegra~~ serrulata, serraturis acutis glanduligeris adpressis, utraque gla-
berrima ~~vin~~ pallide virescentia, per venas anastomosantibus pulchre reticulato-
areolata, subtus parum pallidiora. — 4)

Si quidam nostratum sit comparanda S. hantata quoad habitum proxima.
Tota ~~Portia~~ ~~parva~~ ~~prope aquam~~ ~~etiam~~ ~~repens~~ ~~crescit~~. Utriusque folia
ovalia brevissime petiolata, ~~vin~~ ~~pallide~~ virescentia, praesentia subtus pulchre reticulato-
venulosa; amuta ~~et~~ etiam haud dissimilia, sed squamulae concoloris, quare etiam
S. amygdaliaria nonnihil refert.

8. Salix Sieboldiana. Thunb. Bijdr. N. p. 517. Asa Gray: Plants collected in Japan
(Exposit. to Japan) p. 219.

amentis sessilibus, minusculis, erectiusculis, densifloris; squamis lanceolato-lincaribus,
testaceis, concoloribus, integre pilis conspersis; capsulis coriaceis persistentibus, pilis
rigidis albo-cinereis inferne dense hirsutis, apice glabrescentibus fuscis, periclyo
hirsuto nectarium duplo superante, stylo producto; stigmatibus integris; foliis
obovato-ovalibus, utrinque glaberrimis, subtus opacis, margine acute glanduloso-
serratis.

Sub. ad Hakodadi Japonia ~~Asa Gray~~ leg. Williams & Morrow
(H. Asa Gray)

Arbor. Rami cortice fusco-glabro vixente obside. Folia $\frac{1}{2}$ pollicem longa,
superius medium vix pollicem lata, exacte obovata, apice recto nonnihil pro-
ducta, margine acute serrata, serraturis subaristatis glanduligeris, utrinque gla-
berrima, superius obscure viridia, venis elevatisculis striata, subtus pallidiora
subtranslucentia, costa et venis prominulis pulchre reticulato-venulosa;
petioli $\frac{1}{2}$ pollicem longi, glabri. Anthera (femina tantum vix) pallidiora,
cylindrica, acutiuscula, densiflora, cinerascens; bracteis paucis et minutis
suffulta; rachis villosa-hirsuta; squamulae linear-lanceolatae obtusiusculae
~~concoloris~~
ut videtur persistentes, capsulam fere dimidiam aequantibus; periclyos parvis

nectarium crassissimum duplo superante albo-hirtus; ^{inclin. long.} capsula (conico-haerula, ventre
pilis rigidi albi condensatis hirsuta, rostro glabr. fusc. ; stylus prodestus ^{inclin.} pericelli
longitudine, etiam glabr. et fuscus; sed stigmata sat crassa, fulvescentia, integra.

A specibus in Europa cognitis sat longe recedit, nec omnino certus sum
an potissimum haec maxime affinem credam. Quoad formam antherarum ut
etiam foliorum S. physicifolia quodammodo similis; capsulae autem ^{multo} brevius
pedicellata, ^{beni} albo-fusca, et equans concoloris.

9. S. vulpina And. - Diandra; antheris subsessilibus, bracteis; squamis acutis,
apice nigrescentibus, utrinque pilosis pilis rufis intus hirsutis, ^{dense} foliis obovatis,
oblique acutis, serratis, utrinque glabris, subtus pallidioribus.

Des. of 22 Yokohama Japonia leg. Williams & Morrow (Hb. Asa Griseb.).
Tudex videtur sat altus. Rami ^{densi} meris crassi, dense foliati, cortice
fusco-castaneo nitenti adnatis. Gemmae 1 1/2 lin. longae, etiam castaneae, glabre
nitentes. Folia subsessilia, petiolo brevissimo planiusculo glabrescente nitenti.

Antia, junior exakte obovata et minuta, praesentim subtus villosa tenui
rufescente-pilosa et facile caduca obtecta, adulta fere ^{pallidior} iniciam longa, supra
medium 3/4 pollicem lata, basi angustata, obovato-elliptica, apice parvo
nuncius producto saporitine obliquo acutata, margine sat distincta, et
profunde et aequaliter serrulata, supra obscure viridia, costa albescente-pubenda,
ceterum glaberrima, venis regulariter arcuatis percursa, artus pallidiora, costa
et venis dilationibus pulchre venularis, omnino glabra, exsiccatione subnigrescentia.

Antia (mascula tantum, viri) 1 1/2 pollices longa, 2 1/2 lin. crassa, exakte
cylindrica, obtusa, subflexuosa, erecta-patentia, densiflora, basi foliis ^{pauca}
pauca 2-4 suffulta; squamae 1/2 lin. longae, ex ovata basi acutiuscula, apice
nigrescentia ^{et et} ^{subcalvescentia} ceterum utrinque pilis sat longis rufo-ferrugineis
hirsuta; Stamina gemina, filamentis squamis duplo superantibus pallide

flaviscutibus, foliis superne crassioribus, antheris lat. magnis rotundatis ~~fulventibus~~
~~libris aurantiacis~~

A specibus omnibus mihi capitatis aperte recedit squamis capsularum
 inferi hirsutis. Quoad folia S. nigricanti, in Europa vulgarissimum, ^{certe} ~~forte~~
 proxima.

10. S. acutifolia Wied. sp. 4. p. 688. - ?

Ad hanc speciem non ~~longe~~ ^{hinc} multa hesitatione specimina quatuor parva
 et incompleta, ad Hakodadi Japonia a Williams & Morrow ducta (1886.
 An Gracj) referre coactus sum. - Rami cortice videri nitente captae
 obducta. Gemmae maxime glabrae. Bracteae σ fere bipollicariae et 7-8 lin.
 crassa, densissime et longe ~~causa~~ ^{causa} hirsuta, corollae adpressa, et gemmis
 magnis erumpentibus nullis foliis suffulta sed annis sessilibus; squamulae
 acutae, atque pilis longis lucidis cinereo-flavigantibus oblectae; stamina
 gemmae filamentis longis pilos squamarum superantibus albis, antheris
 minutis rotundatis; folia (novella tantum videntur) lanceolata, graciuscula
 et plana, integra vel absolute vixime serrulata, pueri et lucida viridia.

Holmeid d. 13 Febr. 1889.

N. J. Andersson.

Stockholm 14 Februari 1889.

Dear Sir!

Your last letter, which I was happy to receive last week, has brought me ~~that~~ ^{the} charming information that You have obtained the plants I took the liberty to send You. I am very glad to hear that You have been pleased with the Galapagos-grasses and probably also with the Scandinavian Gramineae & Cyperaceae. As to the other Swedish plants I am sorry to know how very bad specimens these were; but if your friend Mr. Eata can in any way dispose of them, and ^{and more complete} if he should wish on other and a better Collection from our country I should be most happy to prepare such a one.

What You have the kindness to promise to send us will be accepted with great thankfulness. As a member of the Royal Academy of Sciences at Stockholm - You were duly elected last Wednesday evening - you will to be sure not forget this country and our learned Institution.

If you could have any duplicates from Japan - as You have promised to Mr. Tris, who has his own herbarium only - I should be very glad

to join them to the public herbarium at Stockholm - the centre
of our ~~State~~ Kingdom.

If ^{you may} permit me to write a few lines upon our learned institutions.
Besides colleges in every town - some classical some industrial - we have 2 Univer-
sities, that of Upsala founded 1480 and that of Lund, founded in 1809 after the
conquest of that province from the Danes by Charles XI 1686. In these University
the Students are created and examined, and whose wish to become a learned
man, a priest or get any office must first go through several courses
and examinations. In Upsala there are also Society - Societas regia Scientiarum Upsalensis
and in Lund another - Physiognaphische Selskabet - by no means belonging to the
Universities. In Stockholm there was founded 1739 by Linnaeus and others
a Royal Academy of Sciences, and to this institution were added in the
century large collection of Natural History, forming Rikets Museum, with
8 Professors (2 Zoology, 1 Botany, 1 Physics, 1 Mineralogy, 1 Chemistry and 1 Astronomy)
who have no other duty than keep up and enlarge the collections, giving
also annual reports of the ^{progress} ~~advancement~~ of the respect. sciences. The Academy is
divided in 9 classes, each with a certain number of members - in total 100.
The VI Class is that of Natural History; members 12.

I have carefully examined the *Salix* from Japan, both the species
you send to me and those in our herbaria. By the note I take liberty
to send you in this letter you will find that there are not all 10

species already known from these islands. Of these I am very convinced that
S. pedunculata, *S. kiusiana*, and *S. vulgaris* are distinct species, the *infula* proper; *S. japonica* may
be a *S. babingtonii*, *S. subrepens* a true *fragilis* - *S. babingtonii*, *S. alba*, *S. purpurea* and *S. acutifolia*
seems to be identical with our species; and *S. viridula* ad hoc dubia septem. If you can
make any use of that paper I should be very happy. ~~to have~~ ^{to have} ~~concern~~

The letters to Fries and Wurtz have been sent immediately to Upsala
and Christiania.

We have just now the Flora of New York by Torrey. It was sent to the King
from our Consul in New York. But as to the other works on American Trees and
shrubs we are waiting them all.

You should favour me very much in communicating to me all Gramineae
you may have to dispose of. After you having finished the monography of *Salix*
I intend to apply myself quite exclusively to the Gramineae. That work
Kunze may be considered as almost not existing.

In the name of Mrs. Anderson I beg to thank you for your
kind compliments. Perhaps you may permit her - as a painter - to send you something
belonging to the Memory of Linnaeus.

I remain Your most obliged

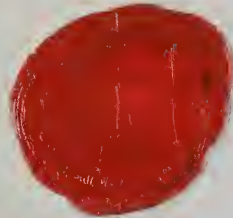
N. J. Anderson.

Mr Asa Gray

Professor of Natural History at Harvard University

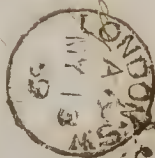
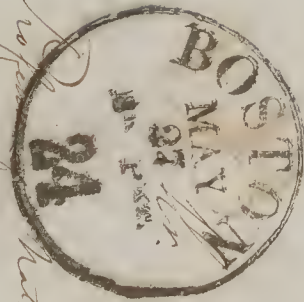
Cambridge, Boston, Massachusetts

United States



(Dear Sir!

It is nearly some months since I sent
to You a Letter (I don't remember its
date) when I enclosed not only the descrip-
tions of Japanese Trees You wished
might be compared with European specimens
but also a paper on the Japanese Salices
You had been kind to send to me.
Having not heard anything from You I
durst fear that You have not
received that letter. If so I will



*Joseph Nature History at Harvard University
Cambridge, near Boston
Massachusetts, U.S.A.*

be obliged to write it again and
send You, which will cause me some
trouble as I am much occupied
just now.

Please let me know if You wish
anything more especially from our country.
I shall be most happy to communicate
it all to You.

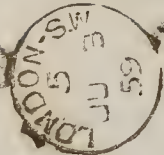
Yours most obliged

N. J. Anderson.

Stockholm 1 Mai 1859.

Dear Sir!

Your kind letter of April 27 I have just now received and as You ask me about the herbarium in Upsala I happen to inform You, that the University of Upsala (the first in Sweden, that of Lund being the second) possesses indeed a botanical Museum, containing 1) Herbarium Thunbergianum, 2) Herb. Wahlbergii, 3) Herb. Afzelii and smaller collections besides mostly bought from the Continent. But as the Parliament has voted a sum of upwards 1000 rixdag at once and 100 rixdag yearly in order to procure complements to that herbar.



10
Gray

Ala

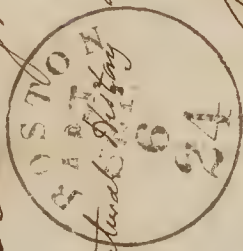
Mr



Director of Natural History at Harvard University
Cambridge, Boston
Massachusetts. U. S.

34

United States


 Mr. J. E. Gray
 Professor of Natural History at Harvard University

 Cambridge
Boston U.S.

(Dear Sir:

Is it possible that You will forgive me for not having in so long a time let You hear anything from a person who felt himself so highly obliged to You and who never ought to cease with his due respects to You.

I really ~~cannot~~ can now give take my excuse to any excuses for my fault; but I most sincerely beg You to forgive me.

In the end of the spring I felt myself a little feeble - not very sick, ~~but~~ but somewhat exhausted, so I took me to Denmark - where we had a meeting of Scandinavian naturalists, and

after that have visited some places in our
southern provinces. Next Sunday I am
starting for a part of our country situa-
ted next to Lapland and I hope to re-
turn with some botanical *spolia opima*.

All the year I have been busy with
the willows. Regel in St. Petersburg had
extremely large, almost enormous collections
from every part of Russia; and as he wished
to have them back again this autumn
I have been obliged to turn them over
quickly and to postpone all the other
materials from other places. That is the
reason why I have not yet ~~made~~ made
full use of your estimable collection;

and I feel indeed very ashamed to have kept
them so long. But I hope you will be
assured that not a leaf will be disturbed
on the specimen and that you will let me
have them some months yet that I may
finish a work, which I really wished I
had not undertaken. But for the difficulties I
find more numerous each day.

As soon as I have liberated myself from
that atlas, which now lies heavy upon me,
I will endeavour to show you in a better way than
only by words, how deeply I feel obliged to
you. You shall then receive some things from
us, which I hope will be acceptable by you.

Please, remember me for ever as Yours
most devoted

Hockholm 2. 8 Aug. 1860.

N. J. Anderson

Hutchins 27 September 1864.

You desired some year ago I have
a photograph of your humble servant. I
now take the liberty to send one, hoping that
you will look ~~under~~ at it more mild and
forgiving, ^{than} ~~as~~ a creditor usually looks on a deb-
tor. Scarcely I can say how happy you
would make me by finding me your portrait;
it should be a honour for me to have
it in my chamber not only as a fatherly
mighty father, but also as a fatherly friend.

I have the honour to remain for
ever
Your most obliged

N. J. Anderson.

I scarcely need to tell you
with how much interest we all,
free citizens in an old free country,
wish that order may soon return in
disturbed America, and good result
from trouble and sorrow.

Honoured Sir!

I am almost uncertain if you do remember me,
for thinking how long since I wrote to you
or received any letter from your hand, I must
believe me quite forgotten. And the worst is that
I feel me ~~not~~ to deserve it. - But I pray
you listen to that little I have to say in my
favour.

The last and this year I was absorbed in con-
cluding that monograph of the willows I was unfortu-
nate to promise to Dr. Canby. My manuscript
advancing I hoped to send it to the illustre
Editor of the prospectus at Genf. Then my
wife made a revolution in my tranquil home,

and disturbed my working-leisure. She gave
my a boy (the third now - of me miscreant!) and
after it she was taken so ill, that I was obli-
ged to go with her to a sabbath - and there
to devote the entire summer.

Before ending my lecture upon the willows
I now would not could write to you. I felt my
afraid to keep your collection so long, and I
would expect to see you at once: now I have
finished, now I send you back your herbarium.

But - as you see - fata non sic voluerunt!
It yet want some time before I can have the
pleasure to announce you that I have been
liberated from a task laid upon me since many
years. Then I will be happy to immediately
to send you Salix back again.

Through the kindness of Dr. J. D. Hooker I
have got occasion to see the willows brought from
America by from Oregon, Frazer River and Snake-
River, Rocky mountains &c. by ^{Lyall} ~~Fraser~~. Boissacian ex.
There are many very curious forms very allied to
those from eastern Asia, (and many proving connectivity
forms of ancient species as *S. sitchensis*, *S. speciosa*
&c.

I shall be most happy to communicate with
you this winter an enumeration of all willows
which I know from America. As you wished
I will also draw up diagnoses for those growing
in the territory which your admirable Manual
comprehend.

Sending back your willows I will take care
that you may have some interesting new plants
newly detected in our country.

Dear Sir!

I can not let the last days of the
linking year pass without telling you
how ~~very~~ happy I was, in receiving you,
as usual kind letter and your photograph,
which ever will be ~~me~~ dear to me, as
representing a man, to whom I feel so obliged,
and who has shown me so long time
kindness and friendship. I now possess
a beginning collection of the portraits of my
botanical correspondents, and amongst them
I assure you, you take a high place, in
many respects.

I think I have told you before, that
my wife, who is a very good painter,
has made a portrait in oil of Linnaeus,
a copy of that famous painting, which Linnaeus
himself ~~assured~~ most excellent. It will -
I hope - accompany your treasures when they
next spring go back to you, and it will -
I also hope - be kept by you as a ^{good} memento
from Sweden. If you wish to have any
autograph of Linnaeus, I can procure you
one very interesting; we have some specimens
of an old herbarium ^{collected and} named by Linnaeus, and
perhaps you prefer to have ~~a~~ such a one
a Swedish flower inscribed by the handwri-
ting of our greatest naturalist?

(I just now reported that I only promised it for the future. I give
a Lythrum here - as a "new-years-gift")

For the day I have nothing at all to
communicate to you in botanical respect.
An expedition which this year visited Spitz-
bergen has brought back immense collecting from
that ~~arctic~~ ^{they} region, and ~~it~~ will be distributed
to several museums and scientific men. You
also will have a set of them, a little
precious one!

A new year commences next day. May it bring
you health to work for the science as before,
happiness as a citizen and husband, and all
all good and You wish yourself and the Yours.
And I pray you to forgive me, when, among
other wishes I and You, I also put that.

May you not forgive Your
most obliged

Stockholm 30 Dec.
1861.

N. J. Anderson.

I am very sorry to hear that it is impossible to get anything of Wright's Cuba Collection 1st ed. Now - if it is quite impossible to have this set (and I pray You to have me in your memory if any possibility will be opened to have them in any way?) - I should be very glad to have, as You propose, the best remaining set of the new series - if I have understood You fully. As soon as I can have this collection I will send You the necessary money for them. But I repeat: generally I have not found it of any utility for our Museum to buy these circumlocutory collections.

It should be a very great satisfaction for me if I by a new letter from You were informed that You are not angry with me badly as I have behaved myself towards you. Believe me for ever

Your most obliged

N. J. Anderson.

Legation St. 25 July 1861.

My dear Sir!

Your kind letter that I received yesterday has been a great pleasure but in the same time a great reprobaton to me. What has caused that? I am so long a time have not written to You? Surely: I can not answer that question, only that I have been ashamed not to tell you that I was preparing something for you and sending back the salary which you had lent me. I think I have formerly told you that we have at Stockholm a Museum of Natural History, viz. for Zoology, Botany, Astronomy, Chemistry, Physics and Mineralogy: each of these Departments is kept by its own own Curator or professor, three for Zoology but only one for the others. Being thus quite alone for Botany, and the collections much increasing I have very

nausea to do, and can apply myself at scientific work only at intervals. In the last years I also have been travelling very much, but away by the government; and the result has been that my monograph of the Salices has kept me fully engaged these last eight years. But now - I am glad to tell you that the manuscript has been sent to De Carroen it is now two weeks ago, to be printed in the XVI volume of Prodrum. With my family I have taken me some leisure for any months and am living this moment at the shore of the Baltic, bathing, swimming, hunting and stretching myself in the deep grass!

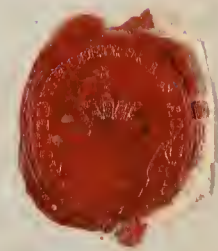
Sincerely I can tell you how happy I feel myself having performed this monography which has caused me so much and endless trouble. I dare not say that I can and the others may be satisfied with what I have done, but I believe that I have done my best, and very seldom so abundant material have been conferred upon a monograph from various parts of the world. But in the

indulging I have soon learned better than before that our greatest knowledge is that we know very little, and that all science consists in not in founded and established principles but in changing, advancing of principles.

The last summer I travelled with my little wife in the highest parts of Lapponia. During three weeks we slept in open air or in the huts of nomadic Laplanders, eating nothing but hard bread and some cheese. But I made my good collecting and have prepared now several specimens of a *Flores Lapponica exsiccata*. Returning to Stockholm I will enclose in a case 1/ the portrait of Linnaeus so long ago intended for you and also labelled with your name and 2/ the *Flores Lapponica exsiccata* and 3/ several hand-written plants for Mrs. Eaton and Lapham and 4/ your Salices.

If there is a ship sailing from Stockholm directly for North America the case will be sent with it. If not it will be dispatched via Hamburg - that you may have it this autumn.

Mr. C. M. Gray
Professor of Botany at the Harvard University
Cambridge, Boston
Mass. U.S.A.



Amund
Nov. 30

Dear Sir!

This very day I sent by steamer to Mr. Charles
Petit in ^{Petit} a case addressed to You which
Mr. ~~Petit~~ will forward to You via Hamburg,
having before communicated to You the announce-
ment, that You may know by what ship, it is
going to America.

The case contains 1^o the portrait of Linnaeus
painted by Mrs. Anderson and presented to You
in the hope that it may be worth your kind
acceptance and a place near to You. I dare
say that it is not very inferior to the original,
of which Linnaeus himself has written that it is a
remarkable portrait, extremely resembling.

2^o) An exemplar of my Flora Laponica variegata,
containing a nearly complete list of the Lapland plants;
I will take care to have it completed by and by.

3^o) Another intended for Mr. Engelman, to which
I beg You to send it.

4^o and 5^o) Two very good collections of Swedish Salices.
You remember that I was happy to receive through
You for some small collections of North American
Willows from two botanists whose names I have
forgotten (the one was no doubt residing in Sweden).
I beg You to be so kind to bring these willows to
these Gentlemen telling them that they may have
all Swedish plants they wish from me, only
I know that they wish to have such.

6^o) All Your Salices, which You had the
kindness to lend me for inspection. I have named

them all, and I wish I had also Your Populus.
In the month of June I sent my monograph to Dr
Candolle, and it will appear in the next volume
of the Prodromus. Now I am engaged in printing a more
complete monograph of the same family in the Acta Hb.
minis, and that will be accompanied by figures
of all the known species.

In the next spring I will be most happy to
send You a good collection of Swedish plants.
I should be very glad to hear that You had
received the case just ordered to, and that
are intended with.

Yours most obliged
N. J. Anderson.

Stockholm 19 Octob.
1865.

Dear Sir!

It has been a great pleasure to me to receive
your kind letter of 30 last Novemb., and hear that
you are well and yet remembering me. Yet greater
pleasure will it give me to be informed that you
have received the case I sent you on Hamburg
and that you have deigned to accept ~~what~~
I and my wife are offering you.

Permit me - in the first - to express to you
my sincere wishes that happiness and comfort
and all good things may be your lot in
the new Year which in these days are beginning
its course in the world.

As we in Sweden have had a great revolution
but a happy, as quiet one without bloodshed
without any calamity. We have been liberated from
the oppression of the nobles and priests, who in
centuries have prevailed upon us. If a republic
in Europe were a possibility certainly Sweden
would have it very soon. As it now is: we
are the ~~for~~ happiest king governed in the animal
world.

As to the Cuban plants I am very glad
to have all you can procure me; anything
is better than nothing and I will ever be very
thankful for ever pains you will take you in
contributing to make the set of plants as

complete as possible. But as to the price
I beg you to fix it for me as I am very sure
that you will have the best judgment of the
value of these collections.

Yesterday I had a letter from Dr. Wirtz at
Montreal sending me some specimens of American
Woodia. We have also a quantity of ferns of
this genus, which I believe belong to one single
species. But I will send others, other better.

Yours most obliged

N. J. Anderson.

Stockholm 4 Jan.
1866.

plants, about 1300 species, and beg You
either to keep it for Yourself or
give it to a man who will be
so kind to send me Your own Flora.

I shall be most happy to hear
very soon from You and to read in your
kind letter forgiveness and the old
friendship.

Your most devoted

N. J. Andersens

København 26 Mai 1868.

Dear Sir!

For a very long time You not heard
any thing from me, and You may be
persuaded that I often have felt very
ashamed for being so ungrateful.

But several misfortunes have prevented me
from doing what I ought and would have
done. My wife and children have been at
several periods very ill, and in the beginning
of this year I almost feared to loose
her, having given me a dear daughter
for that little cherished being we lost the

last summer. The 9th Feb. this year
I was severely taken by an inflammation
of eyes, which has caused my imprisonment
~~me~~ to be a prisoner in a dark room
for now 14 weeks, so that I only some
days ago was permitted to read and
write a little at intervals.

I have now to confess another fault
of mine; I have not yet paid my debt
to You for the plants received from You
and Griseb. from the rich of West India.
And the reason is that I have sought
the letters when You had - I suppose
told me the price of these plants,

but have not yet been able to find it.
Now, please to forgive me and tell
me my debt that I may make me
again free - also from the reproaches of
conscience.

I hope You have received long ago
the first part of my *Salicium Monographia*,
which was sent to You through
a bookseller ^{at} Leipzig.

Very soon I send You a most complete
set of *Spitsberg-Flora*, collected during
our four Swedish expedition to this
highland island. Also I send a
collection, almost complete, of Swedish

Hochstet 16 Oct. 1868.

Dear Sir!

I feel now returning from my summer sojourn, when, of course, I come somewhat restored to the use of ~~the~~ my eyes, I have been busy to arrange some collections of Swedish plants, one of them intended for America.

But then I received of your last kind letter, which I hitherto have been prevented from answering, that You would go, already in September, cross the ocean and stay for some time in England, and thence proceed to the South and possibly visit, next spring, Denmark and Sweden.

That was the reason why I have not

Asa Gray
from Cambridge
Professor

sent away that large collection, an almost
complete one, of the Swedish plants which
I hoped you would forward to a botanist
in America, who would and could give
me a collection from his country in
return. And now I will ~~keep~~ keep
the gate with me, till you will come
and take it - or will inform me to whom
it may be best sent.

What a happiness for me and my wife
if you and your lady really will make us
a visit! I dare not yet believe so, it,
but I can and I may hope so. As you
know there will be in the middle or end

of May a botanical congress and ~~an~~ ~~entire~~
horticultural exhibition at St. Petersburg; probably
I will come thither to see the wonders of the
great capital (and I know that there are
really wonders!); will you not meet there, coming
from Berlin? then we will make company to
Sweden, I will show you Stockholm, Upsala and
the neighbourhood, go with you to the provinces,
conduct you to Norway - the high alps there! -
and so to Copenhagen!!!

Let me hear very soon that you have
fixed you to come to Sweden, to your

most obliged

St. J. Anderson.

be examined, I take the opportunity I to ask
if you would be so kind to make a review
of them. I am very convinced that You have
never seen plants from a foreign country so well
collected and proving so good a material for good
determination.

If you see Dr. Engelmann I beg You to
say to him not only my great obligations for
that beautiful collection of foreign American he
has been kind to send me, but also to beg him
kindly remember me in return also.

Bring Mrs. Gray my and my wife's sin-
cerest compliments and believe me for ever

Yours most obliged

N. J. Anderson.

Hochstetern 16 Octob. 1869.

Dear Sir!

How greatly disappointed I and my wife
were to hear that we should not longer
hope to see You and Mrs Gray here in
our home! This chance gone, all is
gone! ^{have} How happy we would have been, to
show You our country, to make some
small excursions and to give You some
remembrances from people thankful to
You!

But will there really be any hope
left to us, that You will make another

visit to Europe, and to our northern
country?

If so: a hearty welcome I bring
You.

My eyes are, praise unto God! much
restored, and I am now working more than
at any time during this Year. Dr.
Hooker no doubt has informed You that
I will take up the *Chrysogonum*, which
I studied now 12 years ago and the *Mus-*
Jun etc. *Merlin*. Dr. Hooker, with
his usual liberality and friendship, has

promised, that I may have these plants
from the New Botanicum. How happy
if You also would give me some
contributions from Your own collection.

As to the *Cuba* plants a person now
is engaged in making a list for numbering
the *Gray*. I am very sorry that I did not
know it before, for the affair with *Rodrig*
who will be paid immediately. - What of
plants from you seeing you may possibly get
for us I will be most thankful.

We have got just now from a very worthy
man living in Brazil, Dr. Ryner, extremely
good and rare collections. As Ryner wishes
that his collection may as soon as possible

and May 30
I mean to send out no ~~less~~ 4 1550 specimens
to make up the 400 pounds

Dear Sir!

As You perhaps know I these last years
have been very much afflicted by illness
not only my own ~~by~~ but also those in my
family. Several voyages also have prevented
me from working all the time in my Museum,
and so has resulted, that the collections of
Wright have been laid away in disorder,
some fixed on paper in one time some in
another. It has been a very hard labour
to bring them together, and I am not
quite secure that I have found them
all. Meanwhile, not finding in Your

From the
Along I nearly had a fine set of Chelydromia Canis.

has sent me those from his rich collections.

From Vienna, Berlin and Petersburg I have
contributed; my room - and my head -
is full of Antropogones.

I also found a plan to go ~~the~~ to the Ga-
lupagos ^{of these curious islands} once more. The plan yet is almost
unknown; it is a great problem to be solved!
Do you think it possible I could have any con-
tributions from America? In England 5000 £ are as-
sisted. I want at least 2-3000 £.

Remember me to Mrs Gray and believe
me for ever Yours most obliged

N. J. Anderson.

Stockholm 5 May 1870.

letters nor in those of Goulding the number
of species received by me I have counted all
what I have got, & named and unnamed,
duplicates and single specimens, and found them
make a little more than 2000 species.

Consequently I have remitted to Posing
a sum of 40 £. to Mr. Wright.

Now I beg You to let me know whether
I have rightly paid my debt or if anything
remains to be settled. I am very sorry to
have made such a delay, but I should
be more sorry if You or Mr. Wright
should think me being a false or ~~ever~~
unconscious debtor. Better for me to pay

too much than too little.

As to Your new proposition to have more
from the Cuban collections. I must confess that
the affairs of Museum are actually so bad,
that I am obliged to resume for the
present from these precious but very dear
collections.

Having now finished totally the Series I
have engaged myself to a monograph of Anser-
pagines. It will be a new Augias-stable;
but I rejoice in the hope to make it a
little cleaner than it now seems to me.
Dr. Brooke has been kind enough to let me
have the collection from New; also Mr. De Cordova

Hochheim 9 Mai 1872.

Dear Sir!

It is now almost an year since I had You,
through the bookseller Hartmann at Leipzig, a
small parcel, containing a very valuable set of all
the pharyngoses, collected by the Swedish expeditions
in Spitzbergen. As I have not yet heard any-
thing from You I begin to fear that this
collection, containing almost all the species there collected
and after that, which was sent to Kew, the No 2,
has been lost. Pray - let me know anything about
it.

In these days I have made up another set, con-
sisting of the flowering plants from North Greenland,
collected by the Swedish Expeditions 1870 and 1876;
and as this collection will be forwarded by you
by the Smithsonian Institution, I am very hopeful
that it will arrive in safety. You will not find
there a great quantity of specimens - not necessary
as only meant for a specimen of the Form, but
all the ^{species} plants are some new, hitherto collected
(with very, very few exceptions) in these regions, whence
before the Americans have brought home so many
valuable things.

As to the Cryptogams the Mosses, Lichens and
Algae, ^{they} now are determined, and you will have one
sheet all these things, which I suppose will prove
uncommonly precious, as the ~~Swedish~~ Swedish botanists
have especially applied themselves to these departments
of science.

I have also a very complete specimen of the Swedish
Flora to dispose of. Is there any American bo-
tanist who would wish for it and give us
complements in our American collections, which ^{we} are
wanting very much.

Mrs. Mrs. A. J. Gray arrived via her return

to America, and have we to hope any
visit of You in Sweden? That is asked
by Mrs Anderson and Yours most
obliged

N. J. Anderson.

Will Agassiz travel at Galapagos. Or is there
any chance of having support from America for an
expedition to these curious and important
islands?

Stockholm 1 Aug. 1874.

parts of the old works and should be very
anxious only to see them from the new. I think
they will, quite as the new existing, give a clue
to the systematics, certainly the former family
will spread a large light over the affinities
of our own.

My family, I am very glad to say, is
prospering, the children are growing great, and I
old - so is the father by us.

Many respectful wishes for your health and
happiness from my wife and

Your Devoted

N. J. Anderson

Stockholm 1 Aug. 1874

Dear Sir!

It is now almost 4 months since I wrote
to you announcing that I send a case contain-
ing

I for you

1. A very complete and rich collection of *Characeae*
Scandinavia
2. An excellent collection of Arctic mosses brought
home by the Swedish expedition and named by
Rydgren.
3. A good set of *Salices Scandinavici*
4. 8^o of *Carices*
- 5 and 6. A second set of *Salices* and Arctic mosses
to be given by prof. Asa Gray to any American
botanist who cares for these plants.

b) For Mr. Webb: Collection of *Salices* and *Characeae*
Scand. bound together in a parcel.

c) For Dr. Engelmann, St. Louis
1. *Salicy*, *Cinias* and *Characeae* Scand.
2. Arctic Mosses.

d) for Mr. Walt (The editor of *Filices canadenses*) Montreal
A complete collection of Scandinavian Ferns.

e) for Mr. Olney (Providence) a collection of terrestrial *Larices*

f) for Mr. Curtis 1) a very complete collection of Scandinavian
Phanerogams. 2) Arctic mosses and 3) Scand. *Characeae*.

I am very ashamed of having made you this trouble.
But as I have no information of the address of these
botanists and as hoped any friend of yours might take
the distribution upon himself, I trusted you would pardon
me this trouble.

In these months I had no letter from you
and I was quite uncertain of the fate of this

case, which was duly sent from Albany through
my commissionaire, *Careful Charles Petit*. Then I
was very glad to receive a letter from Mr. Wm.
P. James, dated Cambridge Massachusetts 2. 7 July 28.
By which I conclude that the case has arrived to
you, and I am quite sure that the contents is
duly distributed - which will make me very happy.

Now only I have to announce to you that

I will send this autumn an other set of
arctic plants, the mosses from Greenland and
the Algae from Spitzbergen, which I hope
will be ready for distribution.

Would you think it possible that I could
have from America the *Salices* ^{fossils} ~~family~~ found
there. I am now studying them from various

qui contiennent un assez grand nombre d'espèces, toutes déterminées par le doct. Fournier.

En attendant le plaisir de recevoir de vos nouvelles, veuillez agréer, je vous prie, l'assurance de ma haute considération,

S. Andrieux

49, rue Blanche.

P.S. J'ai pris la liberté d'ajouter un petit paquet pour le Prof. Thurber, de New York. J'en serais bien reconnaissant de lui faire parvenir.

Paris, le 21 mai 1880

Andrieux

Cher Monsieur et honoré maître,

M. Sprague m'ayant demandé à acquiescer une collection de mes duplicata de Lichens, m'a écrit de vous les adresser par l'intermédiaire de la Smithsonian Institution en vous priant de lui faire remettre le paquet qui porte son nom.

Il a ajouté que, suivant une demande que vous m'avez adressée antérieurement, vous recevriez avec plaisir un paquet de phanérogames, comme échantillon des duplicata que je pourrais mettre à votre disposition pour l'herbier de Cambridge. Jusqu'à présent, j'en n'ai pas pu m'occuper de ce travail, car mes plantes n'étaient pas encore réunies par familles et mes occupations

étaient si absorbantes que j'en n'avais pas pu y consacrer le temps nécessaire. Aujourd'hui ce premier travail de classification est fait. Les Lichens ont été étudiés par M. Mueller arg., les Cucurbitacées par M. Cogniaux, les Passiflorées par M. Masters et les Fougères par M. Fournier. J'espère que l'apparition des diverses monographies pourra se faire assez rapidement à partir d'aujourd'hui.

J'ai donc cherché, à votre intention, une centaine de Composées que je vous envoie. Elles vous donneront l'idée de la moyenne de l'aspect de mes récoltes. Il ne faut pas oublier que je ne voyageais pas comme un collecteur de profession, qui a pour but principal de recueillir de beaux échantillons d'herbier, mais comme un botaniste désireux de ne rien laisser échapper de ce qu'il voyait. Il en est résulté qu'un certain nombre d'échantillons ne sont pas d'une

grande beauté, mais j'aurais mieux les prendre ainsi que pas du tout. Aussi leur principale valeur réside dans l'exactitude des renseignements portés sur mes étiquettes.

Je fais coller toutes mes plantes, et dans quelques semaines elles seront uniformément comme les 15 Cucurbitacées, que j'ai jointes au paquet de Composées pour vous montrer comment elles seront préparées, étiquetées et empoisonnées. C'est ainsi que je pourrai vous les livrer si vous me demandez de vous envoyer une collection. Le prix sera fixé à six pence (0^{fr}.60) la pièce.

Je vous serais reconnaissant, Monsieur et cher maître, de vouloir bien me dire si ces conditions vous conviennent, et si je dois faire préparer d'autres échantillons à votre intention. Si vous ne tenez pas exclusivement aux Phanérogames, je pourrais vous envoyer des doubles de ma collection de Fougères,

REVUE HORTICOLE

ADMINISTRATION : 26, Rue Jacob, PARIS

Rédacteurs en Chef :

MM. E. A. CARRIÈRE, 140, RUE DE VINCENNES, A MONTREUIL-SOUS-BOIS (SEINE)
et ED. ANDRÉ. Architecte-paysagiste, 30, RUE CHAPTAL, A PARIS

Paris. 3rd February 1890.

Dear sir,

Your spontaneous and kind offer has been very grateful to me, and I send you my best thanks for it.

Before sending you the numbers of the species I have noticed in the Cambridge Herbarium, please let me see what will happen of the business now engaged between M. Thiberton Dyer and myself. We are preparing lists of the duplicates we can both spare to the advantage of each other. As soon as I

Know the exact nomenclature
of the species which are likely
to be added to my collection,
I will look at the names pro-
posed by me in your Herbarium
as they stand, and will let you
know whether some of them
are desirable or not.

At all event, I shall be most
pleased to sell you a set of all
the remaining duplicates, the
first ones being intended for Kerr.

Be kind enough to expect
another letter from me as soon
as I have something interesting
for you.

With my best thanks for your
kind offers and good feelings
towards me, I am, dear sir,

Most sincerely yours

L. Andry

30, rue Chaptal.

E. J. Anderson

Lancaster O. July 31, 1876,
Prof. H. Gray, Cambridge Mass.

My dear Sir

Your kind favor received.

I earnestly protest! I once saw an engraving representing the May Flower starting for the new world, & being towed out of the harbor by a steam tug. This is a vile anachronism compounded with the seeds of the imported Chenopodium album among the old bones of an Indian in an "ash cove" in the wildest region in Ohio. Whether the plant you name has reached that region even yet I almost doubt. There is no clue to the age of the bones. They are for the most part well preserved. But they & the pocket of seeds were buried in a perfectly dry cave, in ashes that have never been wet. But are as dry & dusty as when they came from the "fire". The seeds were covered by some coarse cloth

May it be observed that the seeds of the *C. album* were sent.
 by the Andrian for any purpose? The ark case has been known
 for forty years or more & within that time nothing is known of any
 Gravel there. Before this time the *C. album* could hardly have been
 introduced into the wild & rocky part of the state - a point very backward
 in its settlement. Are you entirely satisfied that the seeds are the
C. album?

Milk by bridge

Most truly yours

E. J. Andrews

P.S. Is the ash (in the refuse layer & Thistle)

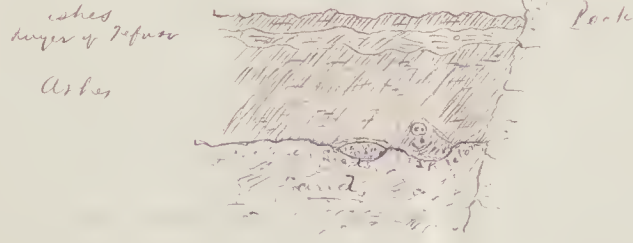
more pieces of stone than of gravel, which I feel must be

for fragments of pottery. Did Indians have grounds? The refuse layer

is evidently more recent than the bones & seeds. Do you go the way I show off?

noticed in exploring old mounds the traces of old roots - in well preserved cylindrical pieces
 of the same covering. I think they may represent several different generations of trees which were
 uprooted when the ground was cleared, & then the *Montezuma* value?

which is very much decayed, the fibres being
 easily rubbed to powder between the thumb
 & finger. The position of the bones & seeds
 is shown roughly below.



The layer of refuse contained bones of animals & birds, shells
 of turtles, bits of pottery, flints, arrow-sticks, stalks of coarse
 reeds, pieces of burnt wood & nuts of various indigenous
 kinds - cobs of corn, &c. Below this layer were ashes
 for perhaps 2 ft., then at the bottom, & resting upon
 the underlying land were the seeds & skeletons.
 The impression left upon my mind was that the bones
 had been there a considerable time & that the
 burial must have antedated the settlement
 of Ohio by the whites. I was not⁵ persuaded of
 the owner of the case to explore further &
 perhaps I can clear up the matter.

Blackburn University.

Carlinville, Ill., 189

You will remember that while I was in the Herbarium last July I spoke to you about this plant, and an examination of the Iris species in the Herbarium failed to disclose any like it in the collection.

Will you kindly look at it and let me know what it is?

Yours very truly
Wm. E. Andrews.

New York Jan'y 19/59

Dear Sir

Your fair is at
hand. We have, stereotyped
& printed the origin of
'Species' and could publish
it almost any day. We
don't know what may
be the changes in the 2^d
Edn. if they could appear
at the end - If the work
sh^d. have any considerable
sale we certainly shall be
disposed to pay the author
reasonably & liberally
Very respectfully

Y^r obt^d s^v
Robt. A. Gray. D. Appleton & Co.

New York Feb 7 1860

Dear Sir,

In return for the request
the contents of Darwin's work
and must apologise for the soiled
state but the printers who supplied
the article for the new edn. did not
understand you wished it again.

We suppose before long we
shall require a new edn. & we
thought we would write to know
if any additions could be made
for a second edition.

Very respectfully

D. Appleton & Co

Prof Gray
Cambridge



Prof Cha Gray
Cambridge
Mass.

Statement of sales of *Darwiniana*
 to New York, 1877 by D. APPLETON & CO., for account of
 Prof Asa Gray

On hand last account,	1500	On hand this day,	155
Printed since,		Given away,	236
		Sold to date,	1096
		Delivered, to,	

Aug 7/76, Harvard University 6
 2. on order 5
 Oct 9/19 Henry Reynolds 213

1500 1500

Sold 1096 Copies, \$ 2. Rate, 10% \$ 219.20

Dr.
 Recd 10/76 To Wm

64.
 \$ 155.20
 155.20

June, 1877

Statement of sales of *Darwiniana*

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Asa Gray

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See. 1877.

See

1877

See 1878

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" '81

9.40

" '82

9.00

" '83

10.00

" '84

9.80

" '85

7.00

\$ 55.60

Dr

Jan'y 2/83. 4 *Darwiniana* 2.13

5.34

\$ 50.26

Ass. Grav.

Per.

1879

27471445

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to *H. By* 1st, 1880 by D. APPLETON & CO. for account of
Asa Gray

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Sold to date

Delivered,

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Asa Gray Febry

1880

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Acu Gray

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Sold to date,

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237

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Wm

Asa
Gray
Feb 1st
1851

Statement of sales of *Darwiniana*

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Delivered,

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45

190

190

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WMA

Asa Gray

Feb'y 1st

1882

Statement of sales of *Darwiniana*

to *July* 1st, 1883 by D. APPLETON & CO. for account of
Asa Gray

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94

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1

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Ann Gray
Feb 1/83

Statement of sales of *Darwiniana*

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Asa Gray

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Delivered,

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49

94

94

Sold

49

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9 80

Don Gray
(July 1884)

Statement of sales of "*Larvina*"
 to *Feb* 1st, 1885 by D. APPLETON & CO. for account of
Asa Gray

On hand last account,

45

On hand this day,

107

Printed since,

100

Given away,

Sold to date,

35

Delivered,

Ed Hook

3

145

145

Sold 35 Copies, \$ 2

Rate, 10%

\$ 7.00

1
Dear Gray
Sept. 1st 1883

Man. Herb. Society -
13 Nov. 90

My dear Sir -

In my haste
in taking the name
of Curator of Botanic
Garden from last
Alumni Catalogue I
copied ~~wrote~~ the name of
the distinguished Prof.
Curator Thomas Nuttall,
when I intended to
address the present
Curator, not knowing
that Prof. Goodale
now held the office.

I sent a note last
evening ~~thus~~, which you
will oblige me by opening
for Prof. Goodale, as I

have since learned he is
away, & endeavoring
to arrive -

Yrs. truly

Samuel W. Appleton
for Com. or Pres. & Chairman

Prof. Lewis Watson.

Peritly Prof. Watson
would address the Herb. Society
himself upon some Botani-
cal subject, as requested.

W. L. Watson

BOSTON OFFICE,
4 Park Street.

NEW YORK OFFICE,
11 E. 17th Street.

ARMSTRONG AND COMPANY,

LITHOGRAPHERS,

Riverside Press, Cambridge, Mass.

Cambridge, Nov. 19 1885

Prof. Asa Gray.

Botanical Gardens.

Cambridge.

Dear Sir.

We think we see a way to reproduce the 24 plates we took from you yesterday, at a moderate cost;—considerably less than it would cost to re-engrave them entire. We need a little more time in which to look into the matter, but will report to you tomorrow or Saturday forenoon the result of our investigations.

Yrs Truly

Armstrong & Co.
Riverside Press.

BOSTON OFFICE,
4 Park Street.

NEW YORK OFFICE,
11 E. 17th Street.

ARMSTRONG AND COMPANY,
LITHOGRAPHERS,
Riverside Press, Cambridge, Mass.

Cambridge, Nov. 21 1885

Prof Asa Gray.

Dr. Sir.

Unexpected detention
here will prevent the writer
from calling upon you before
One o'clock today, and he will
therefore be obliged to defer giving
you estimate for reproducing
& printing the 24 plates in question
until Monday. He will
call upon you Monday A.
M. with full details.

Yrs truly

Armstrong & Co.
Jompson.

BOSTON OFFICE,
4 Park Street.

NEW YORK OFFICE,
11 E. 17th Street.

ARMSTRONG AND COMPANY,

LITHOGRAPHERS,

Riverside Press, Cambridge, Mass.

Prof. Asa Gray.

Cambridge, May, 6 1886

Dr. Sir. - Your note of 4th came to
Land last evening, - and this morn-
ing we rec'd a postal from Dr. Ireland
at St Louis to same purport. -

We beg to report regarding the Cacti
plates, that they are now substan-
tially done. - All the reproductions
have been successfully made and
our Artist has been working over
them - touching up the lines by hand -
for sometime past, and we are
now putting on the finishing touches
to all. -

We send herewith finished
proofs of 4 of the plates. Tomorrow
we shall send you proofs of 4 more,
and 4 others will follow daily
until you have the entire 27.

This will bring us to a finish
a week from today or tomorrow, (May
13th or 14th) - Until that day we
would like to retain the volume

from which we
are copying the plates, as the Artist
is constantly referring to it. Can
we not do so?

If however you must have the
volume at once, will you permit
us to cut out from it those plates we
will yet need for reference, and
retain them until we have finished
proofs of all? We can probably
cut them out so carefully that
they can be again inserted in
the volume after your printer is
through with it. —

Awaiting your reply, Dear

Very truly Yours

Amesbury & Co.

We will send the volume imme-
diately on receipt of your reply if
you desire us to do so. —

Arley 14 Dec. 1838

My dear Sir,

I received yours this morning, and shall have much pleasure in regulating my motions by it. I have therefore fixed to proceed (with Mr. Annot) to Edinburgh on Monday or Tuesday - and shall remain there till Saturday or the Monday following - that is if you get over your examinations at Glasgow so as to arrive in Edinburgh on Friday, then we can all start for this on Saturday the 22^d. But if you do not arrive there ^{by} the Saturday or ~~Sunday~~ (the 23^d) then I shall ^{not} ^{be} ^{able} to return till the 24th. But, on the supposition that you are not to attend Chapel on Christmas day, I think a better plan would be that you do not go now by Edinburgh, but by Perth, the Rome and Tyber of Scotland - Two or more coaches leave Glasgow for Perth daily - and you can have another for Kinross from Perth the following morning at 9.

You thus pass through Stirling. But I ought
to ^{be} very chary in advising you, for our friend
Sir William Hooper, knows all the routes as
well as I do, and will point out which is
the best.

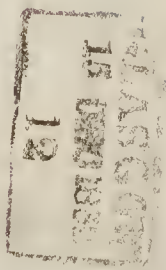
If you determine to go by Edinburgh, address
me, then, on Friday at latest (for I may be
obliged to return home positively on the 22^d). I intend
to be at ~~St. John~~ Walker Arnott (my mother) No. 7 St. John
Street - If you proceed by Perth, let your writing
me. I shall be awaiting your arrival by the
Coach (the Coburg) on any day you fix - It passes
my house at 11 o'clock am.

Yours truly

J. Walker Arnott

I shall have much pleasure in receiving
from your own hand the 2^d part of your floor -

me
Co



Sir William J. Hooper
New St. Ada Gray
10 Woodside Crescent
Glasgow



end of the follicle tube become agglutinated
to the apex of the embryo-sac - both agree
that the first cell of the embryo is downward
Nebis towards the interior of the amnion.

Griffith thinks that the first cell is
actually formed ⁱⁿ the end of the follicle tube -
I am not sure if I understand Meyer means
that, or that the first cell is formed from ^{and in}
the amnion - This seemed to be the view taken
by Mibul & Spall, after making allowance
for their mistaking the embryo-sac for the
embryo-itself - I, again, draw the conclusion
that the first vesicle is formed ^{between}
between the two membranes, but ^{fall}
deposited into the amnion, and ^{latter}

I am the more strengthened in this opinion
that I am extremely doubtful of cells being
generated within cells as Kleiser supposes.
but I suspect they are more formed of external
mucous - But who is to determine all
this? our best achromatic compound mi-
croscope, according to the principles invented
in London, two or three years ago, only are
insufficient to show the generation of the
vesicle - and when once im-agination is allow-
ed to work, facts are neglected - I prefer
generally to state bare facts and to tell
that Physiological dreamers apply these in

Arlary, 19. Jan 1846

My dear Sir

I have just received yours
of the 29 Decr. - and beg to thank you
for your offer of the 2^d Ed. of your
Elements of Botany - of which D. Booth
spoke highly when I saw him in London
but which I have not yet seen - I
have written to Wiley & Putnam to
forward it

I do not approve at all of beginning
at this season of the year, yet I must
commence on the 1st of next month.

I have been hard at work and have
now 20 lectures written - and of these
not less paper on Veg. Anat. and Physio-
-ology: indeed that is the subject I had
early a great distaste for: this arose from
various causes; in the first place I do

not believe that one half of the structures
said to have been seen actually exist,
and I do not approve of one dabbling in
subjects that he cannot himself prove
for, and also show to the class: - not by
drawings, for these are mere auxiliaries,
but by actual inspection - for the drawing
may be looked up to represent any thing.

Another reason that gave me a distrust
for the subject is that much must be
mere deductions from supposed facts, and
^{then} not two observers agree about these facts
what is the worth of deduction. Take the
very subject of the porosity of the sides
of cells: it is now believed that Mitchell
was deceived, and that none such exist -
yet Hooker seems to be so satisfied of that
structure, that most of his illustrations
(some of which I have purchased from him)
show dots or pores, and clefts on the cells.
Then again, allowing that Mitchell was
deceived, ^{and} that he took to be pores, or we

not to allow pores at all, when liquids
are found to pass through the membranes;
and what is more when some animalcules
are seen to pass from one cell into another
in the genus *Sphaerium*! nay, particles
of starch have been made to pass into the
interior of these cells.

Vegetable anat. & Physiology is a peculiar
study, and an engaging one - but I think
it ought to be left to those whose minds are
not capable of applying the few broad and
incontrovertible facts known regarding them,
to System - the highest and perhaps only
branch of pure Botany, which combines
in itself a knowledge of nearly all that
is worth knowing.

The only portion of Anat. & Phys. I follow
interested in ^{is} the structure of the ovule & fecun-
dation - and ^{at home} agreed in it - for that Corde-
had cleared up the subject: but alas! I
am now as clearly convinced that Corde-
was an even entirely fallacious; and I
am more disposed to believe in Mr. Meyer
& Schleiden, and Sir J. M. That no rupture takes
place in the pollen tube - Schleiden's duplica-
tion of the amniotic sac is not tenable -
Sir J. M. and Meyer nearly agree, that the

in a class that they will take a pleasure
in reading at home - and to take up those
unpopular or dried parts which they would
be disposed to skip by - and to collect together
such ^{or his personal knowledge} amusing notes of the plants examined
in the class, by specimens or drawings, as
they are not likely to find collected in any
one book. I look on the class then as
a mere supplement, a mode of putting the
student in the right track, but of itself, I
think he studies at home not only at the
time, but after he leaves the course is closed.

I have a horrid antipathy at meeting
any subject of science popular: so as to lead
the hearer to suppose that they know a little
of every thing ^{now} for everyday conversation, and
therefore they lay it aside for some other novelty.
I have suffered monstrously myself from the pre-
ludion of Botanophilists: and therefore I
have no wish to extend their number unnecessarily.
At the same time, so long as they understand
that they are merely lovers of Botany - but not
Botanists I have no objection to let them
amuse themselves with stamens & pistils,
and Darwin's "tetraandria monogynia strains".
enough however to delude the mind of any female.
Believe me yours very truly

J. M. W. W. W.

so many different ways, that the moment
one steps beyond the bare fact as exhibited
by the microscope, we launch out into
all manner of absurdities.

Take what I suppose is generally taken
a great Phys. fact? that Sap ascends from
the root. This is elaborated by the leaf, and
finally descends: but why do Phys. conceal
the fact, stated by DeCandolle that stumps
of the Pine (*P. pinus*) increased in diameter
after the tree was felled!: one felled in
1821 exhibited 14 ^{years after as many} layers of new wood in the
stump around the old wood which began
to be decomposed: another? what the tree
was felled in 1743, continued increasing in
diameter for 92 years (when observed).
How did these get on without leaves?

When I consider these ^{the} facts, I often feel
disposed to tell the student, the whole
system, hitherto known, is unsatisfactory
and a mass of foolish contradictions - suited
to amuse the passing hour, but not to
instruct.

But I have another dislike to lecturing

much on these subjects: this arises from
the total inutility of the subject to Medi-
cal students, of whom my class will be
entirely composed. If botany is of use to
medical men at all, it is to enable him
to make out (in a strange country) of the
plants he finds be so and so of books, the
purposes of which are known - for this the
Linn. System suffices - 2^o for enabling
the practitioner when his chest falls in
a foreign country - to select with confidence
some of the natural productions although
unknown to botanists: this requires a
knowledge of the Nat. System. Either of
these kinds also to enable him to ascer-
tain if certain drugs (e.g. Senec.) be pure
or adulterated. Now a slight knowledge
of Anat. & Phys. serves for this; and I think
it unavailing for to waste their time in which
is unprofitable: better to devote 12 months
to going through seriatim the whole of
the medical Natural ex. decs. - and illus.
- take every species with specimen and draw.

- ing as far as possible. I grant you
that will never make them perfect Do-
ctarists: but can any one credit that
a perfect botanist can be made in
one, two, or even three years, and without
patient and diligent dissection at home.
all that can be taught in a class is
the practical portion - the mode of procuring
to make out plants by the Linn. or Nat.
system - This is the only part they cannot
get from books: as to Anat. & Phys: they
will get as much from Lindley or Jones, or
Lussein's introduction, as any one can carry
away in their head, and if they study any
of these books at home they will get more
than can be taught in a class. Another
portion that may be dispensed with in a
class is the terminology: but that is dry
and uninteresting, and therefore a subject the
students will not read at home: they must
therefore ~~be~~ well drilled on that, without
which they cannot make out the name
of a plant. In this way ^{enough of} Botany may
be easily ^{taught} in 15 or 20 lessons - provided
an abundant stock of living specimens be
at hand. My wish is thus to give nothing

When in Hakodadi Bay -

" Simoodah

" Heekui (an Island A)

I cannot discover their situation in my map or Gazette

as to the box in which

the slides are, it is one I got from
London, and kept for sending slides
in by post. so that I am trouble
you too much I should like to see
its face again. If you choose to
fill it with duplicates you may -
but the truth is that I will come
cheaper by the book post.

Yours S. M. M. M. M.

of each slide there is a duplicate
- one is for you, if you care for such
my heavy duty A. M. M.

Bowditch
May 1859

My dear L
although I have not yet
drawn up a list of the species found
the A.S. 21st-Ed. I am in a position
to send you back the specimens, and slides
in case you have any opportunity of sending
them to America - all that I have to
say may go any day in a letter -
now as to the specimens, you will see
that I have got no to them - One is
S. 725 - all the others have a no. with
the S. These numbers are the no. of
my preparations and consequently of the slides,
one specimen is marked 691, 692, 693 - over-
by because I found it necessary to prepare
slides of it in three different ways - 691
showing the diatoms in situ - 692 the same
detached from the wood but not boiled in acid -
the 693 exhibits the slightly boiled in acid, and

consequently with some Lide views
at Valer.

To save your head I kept a little
of the S. 725, from Simsbury, Ct., on
the paper. The second boiling contained
the same as the first, but very more
dirty. The slides are from the first only
~~from~~ the two remaining specimens, I shaped
but added a bit of each, as far as possible
in the one piece of paper - for your Dr. H.
Herbert (with me): These are not sent.
So that all I have left may be returned
to America whenever you choose.

Beside these with No. are some
with letters A, B, C, D, E, F. of these I
made no preparations - of A because
that was unnecessary, of the others because
they were small in quantity and not worth
"powder and shot" not worth the acid, as far
as I can judge from a slight examination.
one I fear, but whether I will or not.
(E)

It is markedly your Polysiphonia,
Monoecia (? I really cannot make out the
name): There is Pluricospora adhering
to it, but I have only ^{by chance} seen one or at most
2, and unless I saw more cannot undertake
to say what it is. I had to cut off one or
two of the branches to enable me to determine
there were any diatoms on it at all.

691, 692, 693 is marked Arctic seas?
now really diatoms and no value unless
we know the locality nearly.

Another, 699 is dated 10.8.55 (at
least I suppose it is the date) - but no
station is given.

Can you give me any information
as to these two -

I intend arranging my notes by the
localities and specimens - but this is
impossible unless I know better
from whom the specimens come.

THE BOARD OF CONTROL.
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PURDUE UNIVERSITY.

EXPERIMENT STATION.

BOTANICAL DIVISION.

LA FAYETTE, IND.

Nov. 10

1888

Mrs. Asa Gray
Cambridge, Mass.

Dear Madam:— I wish to thank
you very heartily for the copy of the
list of Dr. Gray's writings. It will
be of invaluable service, and also
a reminder of the wonderful activity
of a well spent life.

Believe me

Very Truly Yours
J. C. Arthur

The Botanical Gazette.

EDITORS:

JOHN M. COULTER,
WABASH COLLEGE, CRAWFORDSVILLE, IND.

CHARLES R. BARNES,
PURDUE UNIVERSITY, LAFAYETTE, IND.

J. C. ARTHUR,
AGRIC. EXPER. STATION, GENEVA, N. Y.

La Fayette, Ind.

Oct. 20, 1890

Dr. Sereno Watson
Cambridge Mass

My dear Sir:- Through a misunderstanding between Prof. Coulter and myself your statement of account for advertising has not been forwarded until now. I enclose the statement and trust you will find it correct. We do not often make any discount from our regular rates, but our editors are severally under obligations to you for various favors and make this concession as a slight acknowledgement. Will you please send me one copy of Braun's "Veg. Individual in relation to species" and deduct the price of the same (30c) from the amount of the statement.

Yours truly
J. C. Arthur

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Sub Dec. 9, 90
V. 24 p. 10

PURDUE UNIVERSITY

Agricultural · Experiment · Station ·

OF INDIANA.

LAFAYETTE, IND. Dec. 5, 1890

My Dear Mr. Watson:-

Your favor of Oct. 24 with enclosure to cover all indebtedness to the Bot. Gazette for advertising up to date was duly received.

In regard to the volumes of Flora for 1835, 1836 and 1849, I have been unable to obtain them elsewhere, or even hear of any copies in the country. Although I deeply regret the necessity of asking for them, yet my work is at a standstill for want of them. If you decide to favor me with them, please address them to Purdue Exper. Station, La Fayette, Ind. in my care.

What I most wanted in Brewster's Edinb. & Lond. Philos. Mag., VIII, was the discussion between Keith and DeCandolle on the conditions of germination. I shall be glad of any information pertaining to the matter.

Yours truly J. C. Arthur

THE
Botanical Gazette.

EDITORS:

JOHN M. COULTER,
UNIVERSITY OF INDIANA, BLOOMINGTON, IND.

CHARLES R. BARNES,
UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,
PURDUE UNIVERSITY, LAFAYETTE, IND.

June 10, 1893
Lafayette, Indiana.

Mr. John A. Allen
Cambridge, Mass.

Dear Sir: Your copy for advertisement came considerably too late to get into the May number of the Gazette. It will, however, appear in the June issue. I enclose bill for same, which need not be paid until after the advertisement appears, if so preferred.

I am greatly indebted to you for a copy of your check list, which is an excellent piece of work.

Yours truly
J. C. Arthur

481

Berlin W.
Friedrichstrasse 58,
August 18, 1873

Dear Professor Gray,

I duly received the tinbox containing
very fine specimens of the following
three marine phanerogamæ viz:

Thalassia testudinum König (2 fruiting spec.)
Cymodocea maritima Archa (2 flowering spec.)
Halodule Wrightii Archa. (barren)

gathered by Count Pourtales near
Key West, Florida.

I do not think that these 3 species,
the same, which Mr. Wright has
brought in so excellent specimens from
Cuba, are recorded hitherto from
the U. S.

It would be highly desirable to ascer-
tain whether the "*Zostera marina*"
of Prof. Chapman from West-Florida
is the true plant; or, which is not impro-
bable, that *Thalassia*, which is called
in the country "eelgrass", as Count
Pourtales writes, was taken for it.

and the description of the latter was
copied from any botanical text-
book, yours probably.

At all event, it would be highly
recommendable to the coast-survey-offi-
cers to gather specimens of these
plants from all interesting points
of your shores, especially of from
those of the Pacific.

The name "Turtle grass" from which
that of Thalassia testudinum ^{took} has its origin,
is given in Key West, teste Ponsstales,
to Gynodroica manatorum. He observes
also that it is the favourite food
of Chelonia mydas. In Catesby's
History nat. Carol. this tortoise is
figured with the well-marked
Thalassia testudinum (from the
Bahama's); I have seen a specimen
gathered by Catesby now existing in
the British Museum.

My warmest thanks to you and Count
Ponsstales for these very important ma-

terials!

I am, most respectfully,

Yours,

P. Archenon

Berlin, W. May 9th, 1881

Dear Sir,

Mary thanks for the specimen of marine plant you kindly forwarded me. You are quite right in preserving a close relation with *Halysiphonia*. I have named this plant, of which I got ^{from Dr. Engelmann} only a single specimen gathered by Dr Chapman in a locality of Florida not exactly recorded, provisionally *H. Engelmannii* (Nemayer, *Abhandl. d. Berl. Akad. d. Wiss.*, 1875, p. 368.) The diagnostic phrase I gave there is somewhat inexact, one of the two branches ^{of this specimen} bearing 4, the other 6 leaves. There are certainly 2-3 pairs of leaves rounded obliquely as stated by Prof. B. Bal four in *H. ovalis* and *H. stipitata*.

I am glad that this curious
plant has been sent with again
and I hope that your expectation
to get it with flowers and
fruit will be realized soon

I remain, truly Yours

L. Arner son.

and - within 2 1/2 miles of my door
have picked up over 20 species of
Hepaticae new to this country.

And have a great desire to go away
from home to look for these things.

I want to explore ^(particularly) (for Hepaticae) in the
Southern Alleghenies - in the Cattskill
Mountains and in the White Mts. - at
least in the last mentioned - during
the coming season - but my
circumstances are such that unless
I can get a little substantial aid
from some outside source ~~that~~ I fear
I shall have to forego the enterprise entirely.
I have thought that some institution of
learning, or some Scientific Society
might be induced to aid me, if the
subject were properly laid before them.
but I have no one to do this for me. and
am not sufficiently well known to
warrant me in doing it myself. I have ap-
= pealed to the Smithsonian but Prof. Hensley writes me
they are out of funds - else my proposal would in
all probability have been accepted. Would it be
in your power to induce Cambridge or any
other institution or society to aid me in this - to
me most important enterprise? if so I should
be most grateful for your influence. The expenses
would be small. and I should endeavor to make
them as light as possible. And the collection would
be considered the property of the institution or society
defraying this expense. Very truly yours C. F. Austin

Clifton N.J. Feb. 21st. 1866.

Dear Dr. Gray. I forgot with the ^{original}
I ^{have not} acknowledged the receipt of your an-
= tying names of Colorado specimens.
My friend from whom I received
the specimens, was highly pleased to hear
their names.

I sent you a few days
ago a few specimens of ~~the~~ Filices
from Clifton. The Botany club was
informed by Eaton. The Equisetum he
has not yet seen but I have no doubt
they are correctly named. The E
praters rarely fruits but I have
two fertile specimens - and were they
not spent down I would have
sent one. The ~~other~~ E. swansea
is a state found where the ground
is disturbed by the trampling of cattle
or by frequent ~~disturbing~~ the peck-
= ing of the labrador - as on railroad embank-
= ments. I sent you the same

thing once before ^(under the same name) - I think in 1888.

I had a good opportunity last summer for observing the character of the var.[?] Ceriferum of *Thalictrum Corniculatum* and found ~~that~~ ^(under surface of the) besides ~~that~~ leaves - peduncles and fruit being thickly coated with woody grains, that the stem is smaller and more slender. Darker purple and not grooved. Leaves thickened and more strongly revolute on the margins filaments much longer always more or less tinged with purple (as are all parts of the flower both male & female) drooping anthers ~~4 times as long~~ ^{twice as} long and broad. Carpels always short - yet in the typical var. they are sometimes full or short. Besides the plant has a decided ^{and} peculiar odor of which the typical var. is entirely destitute. I found a large quantity of it growing

in the upper end of a meadow and mixed with the typical var. but the typical var. did not extend so far up on the dry ground nor did this extend into the wet ground as the other did. It began to expand its flower on the 5th of June and on the 20th not a plant could be found with a flower on it. They being all passed away within the space of 15 days. No flowers were found on the typical var. until about the 20th of June and they were found in the same proportion as late as the middle of Aug. (On the var. the sepals are much more persistent). I am not yet satisfied that it does not pass into the typical form, but if I have an opportunity I shall satisfy myself fully the coming summer.

I have collected nearly everything which grows about here.

(Merrill)

Clinton N.Y. Sept 3th. 1866

Dear Dr. Gray
Yours of 28th.
ult is at hand.

I was not able to make
much out of the *Halictum*.
I found two patches flowering
about on 10th of June - within
a few ~~and~~ feet of each other
and the only difference I could
detect was that one had a
strong rather disagreeable odor
with waxy grains on the under
side of the leaves - on the pedicels
sepals and stigmas &c. and
the other was without odor
and the waxy grains. Both
had purple sepals and the
large drooping anthers.

The true *T. cornuti* flowers
~~the~~ later and has the
filaments & sepals white.
and ^{much} smaller - not drooping

another. It grows on low
ground - The 3 other species
grow on high ground.

In the new Edition of your
Manual I would like you
to notice that *Linum* which
you called the true Virginian
I am quite sure it is a good
species as I have a thousand
specimens of it - any one of
which is readily separated by
any one of a half a dozen
characters! I would like
to have the attention of botanist
called to it so as to have it
finally settled.

I have sent you *Cuscuta*
evansii from an old field
in this County! *C. Composita*
is extremely common throughout
this State!

I have *Potentilla tridentata*
from Shawangunk Mts. 6.4

in N.Y. & N.J. Aug. 24. *Stegana*
Amicraea ^{*piniflora*}
Agrimonia is very common here.

Am quite sure I have
two new species - *Lernaea* - think
I sent you an account
of them.

Hope to be able in a
month or so to send
you specimens & notes.

Have been very interesting
conversations.

Have collected but little
else besides *Muscis* & *Hepot-*
this summer. Have now
good things in that line

Very truly yours

Coe F. Austin

Closter, N.J. July 19th. 1873

My finances are in a very bad way - I am perfectly willing to give all I have yet done for the benefit of science but cannot possibly do much more without a small recompense in the meanwhile.

I could probably complete the Hepaticæ during the coming winter or if I could go right at it - dropping everything else much sooner.

Mr. Sullivant told me that he had an extra copy of his "Mosses" which he intended to give me, but I presume he forgot it - Think he said it was all interleaved with blank paper for making notes.

Very truly yours, C. F. Austin

Dear Dr. Gray

Yours of 12th. inst. enclosing a copy of your "Biograph. Notice" of Mr. Sullivant is received. The Biographical notice of Dr. Torrey was received in due time.

Mr. Lesquereux wrote me recently that he should never think of a moss again! Do you think he can be induced to change his mind? If he should undertake to revise the "Mosses" I might be able to do a good deal of the drudgery and thus relieve him a good deal - Think Mr. Sullivant intended to depend on me to do the main part of the studying up of the doubtful things - subject to his supervision. There will be a large amount of new

matter to be added, even should
the range not be extended; But
if it is to be published in a
separate volume from the
"Manual" I should very
much like to see it contain
cover all the ground in N. Amer.
north of Mexico.

I have examined
critically nearly every moss which occurs
in my "Musci Appalachiani" and
have discovered many discrepancies
in the current descriptions.

I have the Hepaticae pretty well
written up now, but the descriptions
are too lengthy I presume for your
purpose and will have to be abbreviated
a good deal - I have about double
the number of species given in
the "Mosses" but should want

rather more than double the space
- say about 50 pages.

It would be well to have about
one more plate to represent the genera.
Yet there are but a very few new genera
to add - I think only *Cryptocarpus*
Alicularia *Liochlaena*, *Duxalis*
Targionia *Dendrocnos* *Omphalanthus* &
Phragmicoma.

It would be a grand idea
to introduce a little road cut, at the margin
of each ^{specific} description, of a leaf or something
by which each species is readily known from
its congeners. It very often occurs that
it is almost impossible to describe the
very decided differences between one species
and another, and yet a little figure
would show it at a glance!

L. Austin
Closter, N.J. Sept. 23-73

Dear Dr Gray

I want to go to
Florida this winter on
an expedition for Mon. &c.
that region appears to be as
yet unexplored & to
abound in new Mon. &c.

And Mr. Sullivan told
it was his intention to
furnish the necessary
funds, and I was to
go about the 1st of Jan.
next.

I propose to try to
raise the necessary funds
(say \$200-\$250) by
subscription - each sub-
scriber to receive a

part of the specimens on
my return. Would
you like to take a little
stock - say \$10-\$15 worth
in the Enterprise?

I am now printing the
books of the "Hepot
Exsic" It comprises
125 numbers. I will
be put to a few sub-
scribers at \$15. until
a sufficient amount is
paid for printing is raised.
(The regular price will
not be below \$20)

I'm looking up my
specimens of Anthracos
for the Hepot. Exsic.

about a week ago I
have across no less than
3 well marked U. spp for
the South!

Very truly yours

Coe F. Austin

should be given; and if⁴
I ~~could~~^{could have} my wish, a small
figure should stand at the

head of each specific descrip-
-tion, which would at a
glance show the most striking
feature of the species - as compared
with other species of the same
genus. Often the mere outline
of a leaf or perianth, or something
else equally simple would be
sufficient to do this.

I hardly know how much space
the Hepaticae will occupy. We
have about 200 species. The
number of genera - a matter resting
a good deal upon the fancy of au-
-thors, it seems - will be not far
from 40: - I see Durm. makes
69 the number in his Hepat. Europ.
I should say that an average of a genus
and four species to a page would

Clonster, N.Y. Jan. 3rd. 1876.

Dear Dr. Gray

Thanks for your

∴ Glad to hear that the
Manual of Mosses is getting
along towards completion.
It will supply one of my
own greatest needs in the
study of our Musci.

I have
done nothing with the Hepaticae
Manual since last winter,
for the reason that I then
got in a quandary about the
proper nomenclature, and have
not yet extricated myself from
it. I was then expecting, and
have since received some of
Lindberg's recent publications,
which I earnestly hoped would
enable me to get onto the and
pursue the right track.

But I find him often wavering as if halting between two opinions. I have also lately rec'd a copy of Summerson's "Hepaticæ Europææ" which gives, ~~a~~ when taken in connection with Synops. Hepat. -carum of Nees, Lindenberg & Gottschalk, and ~~with~~ Lindberg's recent publication, a 'muchly' muddled or confused expression to the whole subject. Since the publication of Synops. Hepat. -and indeed quite recently - there seems to have been made a "new deal all round" the genera of Nees have been cut and carved and the pieces shifted about in a manner ^{many of his names have been changed and} truly perplexing. His Order of Arrangement has also been turned topsy-turvy. This would all not be so bad but for the fact that no two modern authors come

much nearer to agreeing with each other than either does with Nees. Nees' system is undoubtedly erroneous - or at least subject to improvement in some respects, but the trouble with me is just when to draw the line. Perhaps you can give me some valuable hints on this point.

I think that the Musci & Hepaticæ Manuals should be got up as separate works; but for the convenience of students they should be bound together.

Your 'financial' part of the plan is satisfactory.

How about plates ^{of} representing the different genera? These

Cosinus is the oldest name. Acoela comes next.

But Dumortier's system of arrangement of the genera is very unnatural and unscientific; and were it not for the fact that Lindberg ^{now} ~~sometimes~~ adopts one name and then another I should not hesitate to adopt his whole system - names and all.

In choosing names for the different organs of the plants, I see that the terms perianth, involucre, inflorescence, pedicel and some others of Sullivan's mosses will probably have to be changed for Colosula, perichaetium, Gamoi-cium, seta, &c. that is if Lindberg is to be taken as a guide.

Very truly yours

P.S. I hope to be able to complete the work before May next.

Coe Austin

(5)
not be far out of the way - say 50 pages (yet I think 40 pages will prove ample). Then say 4 pages for analytical key. 4 for descriptions of plates and 15 ~~or more~~ for index. Besides there should be a short introductory preface and about a page of matter generally descriptive of the whole subject - defining of terms, &c.

One plan that I have adopted in the descriptions is the Comparison and Contrasting of closely allied species and forms; because I deem it of paramount importance to students!

I have the Taylor Hepaticae yet, I hope you will allow me to retain them ~~over~~ this winter. They have already been of great service to me. and I am constantly referring to them.

6/ The great work now to be done with Hepaticae is not ^{to describe} ~~to describe~~ new species, but to correctly describe and "cut down" old ones. Many of Taylor's descriptions are ridiculously ambiguous and often very erroneous: besides he has not infrequently made as many as 3 to 5 "N. Y." out of one old and well known one - Confounded distinct species, &c.

There are ^a great deal too many species in the books, - very likely ~~as~~ an average of two when there is but one in actual existence. The tendency of European Hepaticogists seems to be to keep up this illusion - at least this is the case with Dumortier. Lindberg is more exacting - and appears to be governed ~~rather~~ more by an earnest desire to place the

science on a correct and lasting basis than any other author known to me.

Have you seen Lindberg's "Gen. Europ. Hepat. Secundum novam Disp. Nat."? If not I will send you a copy. It shows deep study and excellent judgement, and I believe is about as near to perfection as it can be made in the present stage of the science. I am somewhat in doubt, however, as to the propriety of adopting all of his generic names, in preference to the often numerous others which have claims to our attention. e.g. he adopts "Caesia B. Gray." in the place of *Gymnomitrium Corda*, Nees. and I see that Dumortier still holds to "*Acidula Dum.*" on the ground that "*Caesius*" (not "*Caesia*"⁷⁷) "is the name of a ~~Man~~ - not of a plant." &c.

Closter, N.J. Oct 28 - 78

Dear Sir: Your Card is recd. I
have seen no California Hepaticae
for the past 12 yrs. Have all that Bo-
-lander collected up to 1866. Will
write out the descriptions of them with
(about 35 species)
pleasure, for you, will also add the
other species which I have from the
whole Rocky Mt. region & Pacific slope
if desirable. Truly Yrs. Austin



WRITE THE ADDRESS ON THIS SIDE—THE MESSAGE ON THE OTHER

Sereno Watson
Cambridge
Mass.

If you still desire
to ~~make my proposition~~
~~make~~ me ^{to} ~~work~~ the de-
-tion, and will give me an
idea of how you want it done
-chiefly, as to detailed ac-
-tions, and then can afford to
pay me a reasonable price for my
time I will undertake the job.
and for the best I can for you.
I am sorry that I cannot give my
~~entire~~ humble aid free of cost,
but my circumstances are such
that I cannot do so without injury
to myself & family. Hereafter when
work for others I must work for
something that will keep the 'wolf' from
the door.

Very truly yours,

C. F. Smith

P.S. I enclose description of Sceloporus
borderi, about as I think is right.
CF

El Centro, N.Y., Nov. 2/74

Dear Sir: I herewith send
you a list of all the ~~the~~ batrachians
known by me to occur in
California. It is possible that
I have forgotten one or two, which
can only be determined by going over
my herbarium, which is no small
job. There are only 35 species
or scarcely over one hundred seen here
in New Jersey (I had found, prior to
1869 just two species in New Jersey,
46 of them occur within 2 1/2 miles of
my door! - Have not been able to add
but one species since 1868, and that
I had previously collected but was
found it as a var. to pygmaea, inflata.
It is a var. of J. Francisci, I found
it about 3/4 of a mile from

Yours of 3rd is just rec'd. I am all right
now. I can write up the Calif. Hb.
for \$5.00, and maybe less, since I
have ~~the~~ notes of all of them. The list
I sent you was drawn up from memory.
Of course Fayomia d'icheli, was left out
though Carelsburg. I certainly thought I put
it in. Convolutus Conicus I think I have
also. The other things you name are species
in Spina you can find in Niccia fluitans var. lata (cf
Clos ter, Dec, 5-170).



WRITE THE ADDRESS ON THIS SIDE - THE MESSAGE ON THE OTHER

Mr. Emma Watson
Cambridge,
Mass,

Closter, N.J. Dec. 24, 77.

Dear Mr. Watson - Since receiving your last letter I have been busy fully half my time, trying to get the Hepaticae in a presentable shape. Frequently I regretted that I had undertaken the job, for this reason only, because I have no natural genius for such work. I find it impossible for me to arrange the Hepaticae in a rational or consistent order. Probably the reason that we have so few attempts at systematizing them published, is because others, like myself, after trying ^{their hand at} it give ^{up the job} up in disgust. This is why my proposed Synopsis H^{epaticae} Amer. H^{epaticae} firs. I am not able to arrange the genera consistently & I know of no one who has come anywhere near doing it. Lindberg has attempted it. His latest attempt seen by

me was made in 1878, but
there are some glaring defects
in this, which he has written me
about, What he can't unravel
in this time, is not to be unravelled!
I have followed him in the main.

I send the Ms. in a
very bad shape, for the reason
that I have written & rewritten
some of it several times over
-changing the order of the

Genus &c. You will
please examine ~~it~~ ^{the MS.}
I state distinctly wherein
it does not suit & return
it - & I will do the best I can
with it. I have no doubt it is
much too long. I never saw the
Flora of California & of course could
not be guided by anything in it.
(You suggest that the way the Order
Rosaceae in that work ~~is~~ ^{is} down
^{would be} ~~is~~ about the right thing.)

I would like the Ms. ~~to~~
returned after you are done
with it as some of it, was
not copied from my Symp. Ms.
but ~~some~~ ^{these} sheets belong to
it to be & incorporated in
this.

I can abbreviate the
thing very much if you
should desire it, but I could
not do it until I had first
written it out. I find it more
of a job - to write short descriptions than
long ones! The faculty of being
brief is as rare as it is desirable.
It is a trademark of genius. ~~and~~
~~difficult~~ - "The soul of wit". I suppose
it will bother the printers to read my writing.
I cannot write a legible hand, only for a few
minutes at a time - a nervous defect, ~~and~~
hereditary ~~as~~ as I have always been ^{probably}

Very truly yours,

Coe J. Austin.

and want you to see it before making any more changes

Ce. 21. 26. 81

Dear Mr. Wilson,
I am most glad that
you do not need any
more of my labor on
the Calif. Hepaticae. For
I am very unwell &
not capable of doing it.
I have written the copy
over & approve of it.
It is a great improvement
on my MS. & I
wonder you this kind of
work is not my
forte.

... and some ...
... in 1855 ...
at ... of ...
...
... in ...
... them,

Very truly yours
C. F. Austin

Closter, Mar. 4, 1887.

Dear Mr. [unclear]

I greatly desire to run
a man. But I am doing a
very heavy job, have got my
wife & daughters interested in
it and it is moving rap-
idly toward completion.

This job has been annoying
me for yrs. When finished
I shall feel as if a
mountain had been lifted
from my shoulders.

The whole thing has just
come to a stand still for
the want of about 2, or 3,
dollars worth of paper & tissue.
Please don't apologize for not paying before.

The job can be finished in a week.

Truly yours C. F. Allen

P.S. You remark that you
think me rather hard on
the Lesq. & James Paper.

In the first place ^{the name} fills,
~~appears, no name has been used in~~
Lesquerens' ~~connection with~~
~~confirmation with~~
that paper was, like Schum-

-per's, for the purpose of
"giving a higher degree
of authority to the descrip-
tions". For I looked it
through carefully without
finding any trace of those
stalling qualities which
characterize his former

Brevier's plain reactions
viz' close and patient research
& strict fidelity to truth. Besides
I believe he has not looked
at a man with the mis-
+roscope. Heiner was a
student of his former labors
and friend, the great and good
Gallivant. The fact is Mr.
Lesquerens has been badly imposed
upon in this matter.

I won't mind rather not
have criticized the paper, and
although I had finished my
notes I should not have pub-
lished them, now at least,
but for an insulting letter
I got from Mr. James. Among
other things he said that he speak-
ed which I had been describing
"ought not to be recognized
by biologists", and that I was
constantly "making new points

when I can't "evolve" first
"the one variety."

I have a good number
of great "disabilities" of
have only "chimpanzee" old
Synop. Mitter's "Mosses"
of J. H. M. & J. H. M.
looks, but have
many European speci-
mens. Of course I
have described a number
of old Mosses as new.
But not more I think
than bryologists, and;
do,

C. F. H.

Closter, N.Y. Mar. 6-80. 

Dear Mr. Watson,
Did you return all my manuscript? A considerable
portion is missing

The money is recd.
I can't make out what Riccia
you mean, unless it is R glutans
var. lata which you sent
me a short time ago C.F.



WRITE THE ADDRESS ON THIS SIDE—THE MESSAGE ON THE OTHER

Prof. Lorenzo Watson,
Bot. Gardens,
Cambridge, Mass.

Marchantia
" polymorpha

Stemmaria
Bolander
California
~~California~~

Vicia

Pr. T. M. R. R.
Tenn. R. R.

Argonia
[unpublished] now had this
S. W.

Dear Sir these are the names that
are missing you will confer
a great favor if you will write them
for me

Very Resp and Truly yours

Mrs C F Austin

W. C. Custer

Sent copy of above June 17/1880

Are there any dupli-
-cate of *Sphagnum*
Lindbergii in
the Sullivan
Herb. I know Peck
sent him quite
a lot of it. This
is one of the most im-
-portant mosses in
my Herbarium, & I

should like enough of it
to finish out the last 12 cells just
put up. about 2 stems would
answer ^{as} they could be cut up in
short pieces C F

Closter Apr 20

Dear Sir thair is
about 10 names missing
in that manuscript that
Mr Austin sent to you
would you be so kind
as to write the Description
of them for mee I would
like to sell it but cant
do it unless i can get the
missing ^{numbers} written

Austin intended to have supplide
them but he got se week so fast
that he was unable to do it

Let me hear from you soon

very Respectfull yours

Mrs C E Austin

I have a new *Gymnostomum*[?]
from Pennsylvania which ought to
be mentioned in a note to the text
of Suppl. to *Icones*. I also now have
fine fruit of *Plagiotherium Passaicense*.
- Don't know that M. S. figured this -
he never saw the fruit I believe.

OF

I have wholly forgotten the matter. Have had no time for such things for the past 7 months. Have been obliged to defer many matters until this winter, which no doubt will be too short to complete them in. My health is so poor that I cannot expect to do much, at the best, and I would much rather not undertake your job. I could furnish a list of the species which I have seen from California if this would be of any use to you. But then Dr. Bolander could furnish this list as well, ^{since} ~~as~~ about all my specimens of Hepaticae were collected by him. (He has collected all the species known to me to occur in Calif.)

Very truly yours, C. F. Smith.



WRITE THE ADDRESS ON THIS SIDE—THE MESSAGE ON THE OTHER

Mr. Sereno Watson,
(Botanic Garden.)
Cambridge,
Mass.

Tied in the Specimen. They
grow in pairs, on every
plant there are two of these
large pairs. This has something
to do with the twisting of the
leaves, which I hope to be
able to solve, with the
new growth.

Yours truly

J. Mrs. R. Austin

Princeton

Plumas Co.,
Cal.

Butterfly Valley Cal.
May 11th, 1875.

Prof A Gray;

Dear Sir;

I send
you three plants of *Saracenia*
Darlingtonia, for your opin-
ion. In regard to the root
growth, I have been studying
this plant since in Feb. &
sending specimens & notes to
J. W. M. Canby. I thought by
his ^{last} letter to me that he did
not feel positive, in regard
to the matter. The growth of
this plant is different from

any with which I am ac-
quainted. I send you seedling
plants of one and two years
growth, & then these full grown
ones, of perhaps a century, to il-
lustrate my position, which
I have written fully to Prof.
Leadbey.

No. 1. With one whorl
of leaves, and the little fibrous
root is one year old. No. 2
two, with two whorls of leaves
is two years old. I have traced
this growth back for a distance
of ten years distinctly. The rhizome
here decays. To explain, each
plant sends out one whorl of
leaves every year. Bright up
among these leaves, and rising
from the base of each leaf

comes a little fibrous root
which remains growing up-
ward till the heavy snows of
winter flatten the plant down
and the high waters caused
by the melting of this snow
washes sufficient snow
muck over them to cover them
& thus the plant grows. The
top of the plant of this year
becomes a part of the root
of next year.

As the plant only sends
up a single flower stem
each year, mark the scars
left on the rhizome by these.
Now will you be so kind,
after you have examined
this, as to give me your opin-
ion. Note also, the leaves

ground, on about a dozen leaves
In new leaves, found three
snails, spiders, grasshoppers,
ants, worms, beetles, butterflies &c.
A,

Rm. Austin

Butterfly Valley
August 1st 1875

Dr. A. Gray;

Dear sir;

Your note in
answer to my inquiries about the
rootstock of *Sar*^{is received} the leaves are
not in whorls, but as yet, I have
not been able to learn their true
position on the stem, nor how ^{many}
of them it takes to make one circle.
Each years growth distinctly marked
by the fibrous roots of rhizomes
and the free space between each
cluster or bunch of roots.

I sent you two live plants, two
weeks since, & intended to have
written you at the time, but
was prevented by pressing duties

My Brother has had a photograph
of *Darlingtonia* taken by a traveling
Artist. It is not very good, but
the best he could get here. I've sent
you one in token of his high regard
for your botanical labors.

The first sweet secretion of
was first noticed on *Darlingtonia*
ten days since. It ^{first} appears on
the under surface of "fishtail" in
the form of "honey dew". Three days
after, it was found on the fold
around the orifice and covering
all the rough part of the hood
inside. This morning I find it on
the outside of the hoods, and ap-
-per surface of fishtail. It also ex-
-tends down the wing from a half
to three fourths of an inch, or as far
down as the red color extends. It is
not abundant on any part.

I send in alcohol, the insect mass

out of one dozen leaves.
Many of the small larvae re-
mained in the tubes.

Will send you plants collected
in this valley soon.

Yours Truly,

Mrs. R. H. Austin

Quincy

Plumas Co.
Cal.

P.S. Send you some of the
leaves gathered this morning
hoping you may be able to
detect the honey on the dried
leaves,

Austin

August 2nd.

In an examination
made by my brother & self this
after noon, we found the honey
extending down the wing to the

Butterfly Valley Cal.

Oct. 24th, 1875,

Mr. George E. Davenport,

Dear Sir,

Yours of the 12th inst. is received. I hasten to comply with your request. I fear I shall not be ^{able} to get very good Botrichium roots. It has been an extremely dry season, & the Wombats have been working in the places where they grow. I will go this afternoon & do the best I can.

I send you some plants of Darlingtonia Californica. Set them in swamp mud & leaves, or near running spring water, with the end of the rhizome pointing North, or a little East of North, as this is their natural position (& the plant is a true Compass). It would be well enough to put a spoonfull of water into each leaf tube, as they all contain water in their natural state.

I send you some seed of Darlingtonia. Sow this ^{fall} Fall, on a turf of "bog moss" &c.

Keep them cool & wet.

I have quite a collection of choice California seeds & bulbs, which I would like to dispose of for a small compensation. I also have dried specimens of about two hundred species some of which I would like to exchange for different ones.

I am interested in ferns, & should be happy to receive any dried specimens you could send me. I will send you dried specimens of ferns & lilies.

Hoping everything may reach you in good order, I am yours to command

Mrs. R. L. Austin

Quincy, Plumas Co,
Cal.

Butterfly Val. Cal.

April 8. 1876.

Dr. A. Gray;

Dear Sir;

I send you a small box of *Sarlingtonias*. It is quite late in the season, but as the snow is still on the ground, and they show no signs of growth, think it a very good time to take them up. Set them with the lower end of the rhizome, pointing to the north, & give them plenty of water, or set them in the edge of running water, & I think you will have no trouble in growing them.

Nothing new to note. White larvae abundant in the tubes, and active during our coldest weather. Have coun-

ted as many as 205 in a single tube,
Yours Truly,

Mrs. R. M. Austin.

Barney, Plumas Co,
Cal.

S

I have never seen any thing in the vegetable kingdom more beautiful, or wonderful.

Wishing you well, and hoping to hear from you often.

I remain Your friend

R. M. Johnston

Butterfly Val. Cal.
April 24, 1876.

Mr. G. E. Davenport,

Dear Sir,

Your kind letter has remained unnoticed all too long, but I have been so busy since I received it, that each day has been too short for its allotted work.

Our early flowers are blooming, & it is going to be the best season for wild flowers I have ever seen in the country, and I hope to be able to prepare some nice specimens for many valued friends. I received a nice order from Mr. Bringle for plants to grow, & I thank you very much for making me known to him, & my dear friend Mrs. Ames too. If I

can only sell plants & seeds enough to buy books, pay postage, &c. I shall be able to go on with the work which I have begun and which I so much desire to accomplish something in. I shall be very busy all summer, as I have many duties aside from botanizing, so if I should appear a slow correspondent, you must look with leniency upon me.

I receive the "Medford Chronicle," & enjoy the articles on ferns very much, & shall preserve them for reference. Will occasionally send you a "Rural Press," I sent one to Mr. Pringle & one to you, containing articles from Mr. S. E. Lemmon. He is now in southern California botanizing but not well. He lost his health, or nearly so, in Andersonville Prison, during our civil war. It seems too hard that one of his energy should be prevented from work that is so ennobling by a feeble body.

I thought best not to send you a box of plants before Fall, as I could only find a few of the kinds that I wished you to have. I shall send you the roots of eight different kinds of Violets, I think all of our Californian violets, except one, & that one is Mr. Lemmon's new one. From his description, I have never seen it.

I hear, to day, of a place seven miles from here, where "White Pond Lilies" (*Nymphaea odorata*) grow. I have never seen any growing in Cal.

I shall look well after ferns this season, and hope to send you some rare ones, as nice as those which you sent me.

I shall endeavor to study the physiology of our wonderful "Snow plant," (*Sarcodes sanguinalis*) to some extent this season. How I wish it were possible to cultivate ^{it} in your eastern gardens.

of distance down ^{edge} ~~wing~~. This surprises me
more, ^{as} Mr. Lemmon, Mrs Ames and I
have never before found it at this season
of the year.

If you should name the specimens
and are willing to be bothered with more
please note those most desirable.

Yours truly
R. M. Austin

Fern - Sell Val,
June 4th, 1876.

Dr. A. Gray,
Dear Sir,

Please pardon me
for this intrusion upon your time. I am
collecting plants and was advised by a friend
to send you numbered specimens of the
flora of this valley. You need not name for
me if not convenient, as I am sending the
same species to Dr. Canby, and he has her-
etofore kindly given me the names. I have
several in my lot that I did not have
last year. The Lupines are very much
alike and yet distinct in their manner
and place of growth. I send a singular
compositae which is not quite dry, rolled in
a paper. In its early growth it resembled
a finely divided "Ice plant"

The brucifer with spear shaped pods was not seen in flower. It is nearly a pure white orchid? and very fragrant. I collected this one last year. It is not yet in bloom. I will try and send you & Dr. Canby perfect specimens this fall. He did not ~~not~~ give me the specific name.

Darlingtonia is in full bloom, though flowers scarce, on account of late heavy frosts. Small spiders numerous in flowers, almost every one has its spider and web. The webs are generally fastened to the pistil, and extend over ovary to stamens. Each flower has a lot of small insects in among the stamens, which are found in the webs, also. Have been able to see no flying insects enter the flowers nor tubes.

The first two leaves are about six or eight inches high, and secreting liquid in the upper and lower

part of tubes & hoods. The liquid in upper part, is confined to the hood & dotted portion of tubes; in the lower part it is thrown out in the greatest quantity near the bottom. not as yet extending more than an inch upward. Quantity from one to six drops; clear and tasteless. In my test this morning it changed litmus paper, slightly. No larvae found in new leaves.

Liquid in old tubes greatly increased since the warm weather set in, & the capture of new insects. Insect captured principally large black ants, some spiders, and a few small black beetles. In my examinations this morning found ^{also} honey bees, and a small snail.

Find the hairs secreted quite freely by ~~the~~ most of the old leaves. ^{they spring} ~~this~~ spring, it is on outside & inside of hood on fishtails & extends about two thirds

you have very few more of the
very commonest of the grass
plants, as I have gathered
of 42, would like to have the
specimens of 42, would like to have the
specimens of 42, would like to have the

plants from last year that were
still on the bushes, thinking they
might aid you some. I have abundance
of specimens, such as I send you.

No. 42, was gathered too young, besides
being injured by our late frosts. It
was gathered in "Fern Dell" in June,
at the same time with *Lucolthe*, I
have found it only in the one place
& dug all the specimens. If I had
known it was a new species should
have left some. One or two of the
specimens are perfect; just as they were
dug from the ground, so they are a
more perfect description than I could
give. Last year every part of the plant
was white, this year the leaves were da-
maged by frost.

Please let me hear of the plants each
year. Yours truly, R. M. Austin

Quincy, Cal., July 15, 1874.

O. M. S. S.

Dear Sir,

Wm. H. S. S.
of June 19, & 24, came last week.
Please pardon my want of thought
& selfishness in asking names from you
I was very desirous of having a new species
in name of our city, that is so much
like the "Sage City". I believe there are
three varieties growing here.
I am very grateful for the honor
you have bestowed upon me, by allow-
ing me to name in the Cal. State, & that
I hope to see, for the 2nd ed. to merit
such a reward; for I feel as if the name
had been obtained, merely by the intercession
of kind friends than by any work of my
own.

104, is the loveliest little trailing vine
I ever ^{found} found it in my loved "Fern
Hill" about two miles from Butterfly Rd.
in June; It grows in a deep shady
canyon in & near a cold Spring.
105, grows in the meadows in cold
water.
106, is found at a greater elevation
than Burlingtonia, on mountain sides
it is very rare in this part of Cal.

107, by rich soil,
108, with rocky hill sides,
109, on rocks formed by water
from Soda Springs.
110, in swamps.
I send you specimens of *Sarcocolla*
var. showing different stages of growth
the
a: the first pair of seed leaves, when
the smaller continues to secrete
the resin in upper and lower
parts of tubes.
b: *Sarc.* 2 leaf, arifice open, captur-
ing insects, while the smaller one
has arifice closed, but white Sarcocolla
in the liquid, in lower part of
tubes.
I send specimens of *Linthea sinensis*
in flower and fruit. The fruit is too
young, & will obtain better specimens if
possible for me to revisit my dear last
valley again. I have a few old seed

I send seeds of *Viola chrysantha*, & one
other the name of which I do not know

Hoping to hear from you soon &
that the plants reach you safely.

I remain yours truly.

R. M. Austin

Boston, Mass.

Mr. George E. Davenport

Aug. 15. I have not yet finished
making up notes of the ferns I have
collected for me. As I have concluded to
accede to Mr. Lottin, & delay this for a
little, I have this for a day & M. A.

American Valley Cal.
Aug. 7, 1876.

Mr. Davenport, dear friend,

I have concluded
to send you the *Botrychium* specimen
now, & a few others, as I shall have no oppor-
tunity to aid you in observations on the
plant. It is the most perfect specimen
I could find, and as it has the root
an. old and ^{may} new leaf, & the fruit still
perhaps it will answer.

I have dried you a whole plant of
"*Pteris aquilina*?" which I think is full
six feet high, & some grew farther in the
bushes, that I could not get at, even taller
than this one. The Pellaea were gathered
full young. I have only a few *Chelidonium*
thes. I shall return to the Butterfly some
time this month to gather ferns. I am
satisfied that there are three species

of *Splenium*, and perhaps four, growing there.

I have not time to give you the names of but few of the plants that I send you. I duplicate most of those I send.

I have been having chills, which has spoiled all my botanical plans & excursions, since I wrote you last.

I visited Mrs. Ames after the 4th, & we had a joyful time over her large collection. She leaves the mountains about the middle of Oct. to make her permanent home in San Jose, one of the loveliest spots in Cal. She will continue to botanize, and we have made arrangements to correspond and exchange, so this will give me the Flora of Southern Cal, which I very much desire.

Our friend Mr. Pringle sent me a copy of our California Botany, which I received about two weeks since. It is a nice work, & I hope you have it. I am so thankful to you & Mrs. Ames

and our Kind Father in heaven for giving me such a friend and helper as he has been to me.

I sent Dr. Gray one new species this summer. It is a beautiful white orchid & he has named it *Cepelanthra aphilla*, as it is leafless. It is a singular plant. Leafless, & every part of it white. I may have sent you & Mr. Pringle specimens of it. In form, it resembles *Caralarkiza multiflora*, or, *C. striata*. I have not a single specimen left, as I sent the last to Dr. Gray. The late frost injured the plant this year, & I only got a few poor specimens.

I shall have a fair field to botanize in this Valley next year. I have, late as it is, collected three species not found by me before. Two of them are "*Eriogonum*". One of them named by Watson only last winter. It is lovely, & I send you some of the seed, hoping you may succeed in making it grow in your garden. The other is a Lemon color, seed not yet mature.

Rev Austin

St. Louis, Mo. 2-1-21
1891

My dear Sir,

Very kind of you.

I beg to say, & in appreciation of the interest
which you have expressed in my collection, for the
great honor, I stand almost in awe.
I fear they are destined for a worse future, is
doomed to disappointment. I will try and
overcome obstacles. I have labored almost in-
cessantly since our earliest flowers bloomed. I wish
you had my collection for the use of the U.S.
if you wish them, & with your permission, will send
you numbered specimens of all, not for you to
keep, but if you should desire more specim-
ens of any species, I may know what to look
for.

I went on a short excursion for them
yesterday, & found several plants - new to

me, & also the "gulf" (the idea being from *Silene p. latius*? which I have not found before in Cal. It is the same, I think, as those I saw growing in the south years ago. Dr. Gray, as I did not keep duplicates of the first plants I sent you, only the few I numbered, and I have two with white bulbs & a number of white flowers, that are very nearly alike, I do not know to which one you refer, nor do I remember if I sent you both kinds. *Schoenolirion aburni*. I will send you flowering & fruiting specimens of both kinds, if I am not too late for the fruit; I go tomorrow to see, and to get better fruiting specimens of *Eucathoe Davisae*.

The new orchidaceous plant has no real leaves & certainly no green ones. This year I saw it when first coming through the ground; flower stalk first and of a pure white, reminding me of the manner of growth of *Sarcodes sanguinea*; I saw it two other times, when

growing. It was white as all the leaves - only scales. The larger specimen which I sent you was an entire plant, with a part of the root broken off in digging. It grew under the large cotton tree, in very deep & hard yellow clay. I have found it only in this place.

It is too late for the fruit of the *Scapins* this year.

Accept the sincere gratitude of your humble friend, & pardon if I have unnecessarily intruded upon your valuable time.

Dr. H. Austin,

American Valley, Sept. 22, '97

Dear Friend,

Your Postal came yesterday, & I have worked at "double quick" today to make time to put up the ferns for you. Baking & scrubbing all finished by three o'clock, & the pkg. done at five. I must now write you a few lines, & thank you over, & over again for all your help to me.

I have numbered the plants on the papers & keep a list of them. I have many more to send when work does not hurry me so.

I numbered so as to give you locality. The species of some of them I do not know.

1. *Proserpinaca* — 8 Mill Creek, Aug. '97
2. *Zauschneria californica*, ^{Aug. '97} ...
3. *Psidium* — 3 Eureka Hill, Mrs. Lennie's place

- 4, *Gnaphalium* *Wenzii*, Fern Dell, Aug. '77 27, 28, 29, 30, 31, 32, are from D
5 *Spraguea umbellata*, Spanish Peak July 7. '77 Cleveland, San Diego Cal. I have the
6 *Mimulus* - - - - - names in my coll. but have not time
7 *Silene* - - - - - to look them up now.
8, *Silene californica*, Grub. Flat - - - - - Hope the specimens may answer for
9 *Leucothoe Davisae*, Fern Dell, Aug. '77 what you want them. I sent Eaton
10, *Eriogonum*, I suppose it to be *E. Torreyanum* all the complete specimens I had of
- um, from description; Grub. Flat July 7 '77. No. 18, I shall go to Fern Dell again
11 *Gomphocarpus cordifolius*, Mill. creek, Aug. 7. '77 soon for roots for Mr. Pringle, when
12 *Darlingtonia californica*, Fern Dell, Sept. '77 I shall remember you, with some
13 *Aspidium munitum* var. *Slateri*, Aug. '77 roots of the two kinds of *Batrachium*
¹⁴ *Aspidium munitum* Dr. Gray & party have left Cal. &
15, *Pellaea arthropus var. brachypterum* Mill. creek, Aug. 77 I did not have the pleasure of seeing
16, *Asplenium Filixfoemina*, Mill. creek. 77 them, Mr. Semmon spent two
17, *Batrachium lernaeum* Fern Dell, Aug. '77 days with them, by meeting them
18, - - - - - at Truckee on the Rail Road, I could
19, *Pellaea densa*, Spanish Peak, July 7. '77 have wept for disappointment, when
20, *Cryptogramma acrostioides* - - - - - I found they had really gone
21, *Cheilanthes gracillima*, - Mill. Creek, Sept. 77
22, *Pteris aquilina* - - - - - Excuse haste, and believe me
23, Is it the same as 22?
24, *Adiantum pedatum* - - - - - Your sincere friend
25, *Aspidium veradense* - - - - - Mrs. R. M. Austin;
26, *Cystopteris fragilis*, - Mill. Creek. May 77

as we have an abundance of snow
on the Mts., hope to be able to send
you the promised *Sarcodes Samuella*
to you to exhibit.

Yours sincerely

J. R. M. Dushkin

Crescent Mills Plumas Co., Cal.
March 21, 1878.

Mr. George E. Davenport

Dear Friend,

Your letter of Feb. 9, & your interesting
work, on *B. simplex*, & the Bulletin
came early in March. Please accept
my sincere thanks for them. I value
them very highly, & hope to be able
to show you that I appreciate your
kindness.

I have but few good specimens

of Ferns on hand now, & will not send you any, until I collect again, I do not think *Aspidium Nevadaense* grows in this locality, and we are fifty miles by the windings of the road from Spanish Peak & about 20, from my old home, the home also of Dartington.

I have a rich Botanical Field spread out before for this season, if I can only have time profit by it.

I have studied but little the past winter—children both had scarlet fever, which prevented me from sending away my last summer work, at the proper time, I do not

believe I send you any of my flowering plants from Spanish Peak as I intended; if I did not you shall have them still, as I have plenty left.

I would like as many species of Ferns as you can send me, only one or two of a kind, I have in my Herbar, about eighty North American species, & Sir, J. D. Hooker sent me over a hundred foreign species.

I do not intend to collect so extensively this season, but study more carefully those that I do gather.

I will do what I can for you, in the way of sending specimens, and

Ranunculus, Lemmonii
Indian Valley Apr. 10, '78

Big Meadows.

Praterville Plumas Co, Cal.

May 20, 1878.

Dear Friend Davenport,

I send you
the long promised Sarcodes. I hope
it may reach you without fading
and that you may succeed in
growing it. ^{yo} Keep in a cool place
& do not give too much water, &
when the flowers are about ma-
ture, let remain dry till set; then
put in a cool place & give plenty
of water or snow for the winter,
not allowing it to freeze.

We have a beautiful this summer
Lassen's Peak in full view, & one
of the best Botanical fields in
northern Cal. I expect some
rare "finets" this season,

Wm. M. Canby reports some rare things in my last Summers work.

I have my abomination to contend with. A Dairy Ranch, and much work to do.

I am much pleased with Eatons "Gems of North America". Wonder when the second vol. of Cal. Flora will make its appearance. I am anxious to have it.

I will not forget you when I am collecting this season.

Yours, sincerely

R. M. Austin

Praterville Plumas Co. Cal.

July 11, 1878.

Mrs. Watson,

Dear Sir,

I send you another small package of plants. Many of them are new "find," to me. I have numbered a part of them, I have the names of the unnumbered ones.

476. *Drosera* ~~*longifolia*~~ ^{*Anglica*} Big Meadows July 4, 1878.
 Corydalis baseana Gray.

477. *Aconitum* (*Fraseri*) ?

478. *Thalictrum* ^{*parvifolium* *Tenore*} ? This I think, the same species, in fruit, that I sent in the last pkg., from Lassen County. This was found at the Big Springs, July 4th. It grows in the Willows & Alders, near the water. It is a very frail plant, growing from four to six feet high, supporting itself, by growing in, & resting against the thick growth of bushes. The one sent from Butterfly Cal, in 1876, grows in open moist meadows, and is much more robust in its habit, the leaves are darker green, sometimes tinged with red, or a maroon color.

479. Banks of river, July 4, 79 *Cotinus borealis*, L.

480. Swamps, Big Meadows, July, 4, '79

481. *Artemisia ludoviciana* ^{var. *longifolia*}

- occidentalis, Wats.
482. *Silene* & Hills, near Meadows, June 16, '78
483. *Erigeron* ~~repens~~ ^{repens}, Gray
May have sent this from Spanish Peak, last year.
484. *Louisa* ~~deane~~ ^{deane}, Torr.
485. *Louisa* ~~deane~~ ^{deane}, Torr.
Have sent both of these before, but have only one name. I should think they were different species.
486. *Antirrhinum* ~~fulgens~~ ^{fulgens}, Wats.
Mountains near the Meadow, June, '78.
487. *Phlox* ~~donnellii~~ ^{donnellii}, var. ~~diffusa~~ ^{diffusa}
Summit Mts. East of Meadows, Alt. 6000, feet.
488. *Erigeron* ~~Wats.~~ ^{Wats.}
489.
490. *Galium* ~~bipinnatum~~ ^{bipinnatum}, Watson
491. *Symphoricarpos* ~~oreophilus~~ ^{oreophilus}, Gray
492. *Trochilium* ~~marginatum~~ ^{marginatum}, L.
Swamp, Big Meadows, July 4, '78
493. *Botrychium* ~~glandulosum~~ ^{glandulosum} New to Calif.
494. *Quercus* ~~ilicifolia~~ ^{ilicifolia}? - Red Oak & oaks
Indian Valley, Apr. '78
495. *Astragalus* ~~hyssopifolius~~ ^{hyssopifolius}, Planch. & Hook. & Grev.
496. Hills, near Big Meadows June 20, '78
497. *Cardamine* ~~?~~ [?] *Cardamine* ~~californica~~ ^{californica}, var. *platystigma*
This must be different from *C. paucisepta*. It was found at an altitude of near 6000, feet, growing in a lava slide, ~~on~~ I could not get any roots, as the hill was so steep, and the lava so loose, that it would slide in, faster than I could remove it.
498. Mts, *Pentstemon* ~~agaveus~~ ^{agaveus}, Bth.
499. *Crimson Andersonii*

Please let me hear if the packages reach you safely.

Yours sincerely
B. M. Austin

(Big Meadows)

Praterville Plumas Co., Cal.

Sept 17, 1878

Dear Friend, Dr. Gray,

Your Postal is received. Our good friend Canby had given me the same name to the plant, which you give, & told me "It was a rare find," and also desired more specimens. I did not find it this summer in collecting, and our home now, is fifty miles from where I found it last year.

I think I have some specimens left from last year, but they are still in the boxes, with many other plants, as I packed them nearly a year ago,

And as I am going to make the ascent of Mt. Lassen the last of this week, cannot look them over, till after my return. I have some other specimens that I have been saving for you, & hope to add more on the coming excursion.

I was disappointed that I did not get to see you & Sir Joseph D. Hooker, when you were in Cal. I had laid by a good many specimens for you both.

I made a trip to Fern Dell, where *Darlingtonia* grows, in August, & took a few hurried notes, which I copy for you, trusting they may be interesting to you.

Hooker wrote me after his return home, & sent me

his
"Address, delivered before The Royal Society. I was pleased with the portion referring to 'The Big Trees'."

Your Lecture of Apr. 18. '78 was handed me this morning. Thanks! Shall read it with interest.

I have had no word from Mr. Lemmon, since the burning of "The Dio Lewis Bubble." He was then bound for Yosemite.

I secured leaves of the three willows sent to Mr. Watson, in the first pkg, sent this year. I also sent some to Mr. Bebb, & will send Mr. W. some, with aments also, when I send your
Grove.

Yours very truly
R. M. Austin

Prattville Cal.

April 26, 1881.

Mr Sereno Watson,

Dear Sir;

A letter
and card from Mr. James L Bennett, of Providence, remind that I have neglected to long to thank you for, and acknowledge the receipt of the Cal Flora II Vol.,

One, and the principal reason was, that I wanted to send you some plants that I found last year, and did not send, as I heard that you and Dr. Gray were both traveling, but so far have not had time to go over packages and put them up.

I am almost sure that I have a Cyrtopodium that

not described in the Bat, I
found it too late, and only got
poor specimens, I shall try to
secure good ones this season
and send you.

Mrs. Austin

Prattville Cal, June 6, 1891

Prof. Sereno Watson.

Dear Sir;

I send you the *Cyrtopodium*, spoken of in my last, and which I did not think answered the description of either of those in the Cal. Bot. They are entire, except roots, and as I found so few of them, and dug several of the roots last year, did not like to destroy more. I sent roots and fair fruiting specimen to Dr. W. A. Conby last fall.

If the species should prove new, and could consistently be dedicated to Mr. C. G. Bingle, please remember my former wish, expressed to you or Dr. Gray.

I will send you any thing I may find new (to me) this season, yours truly,
R. H. Austin,

Austin

"Big Meadows."

Prattville Phumas Co, Cal.

July 21, 1881.

Mr, Lewis Watson,

Dear Friend,

Your favor
of June 14. came to hand some time since,
I felt sad at the disappointment, in not
having the *Cypripedium* bear Mr. Pringle's name
It was a selfish wish of mine, and had I
considered the fitness of things more, would
not have made it known; A few years ago
when he had some kind of a degree con-
ferred on him by the State of Vermont, he
said in a letter to me, that he "would deem
it a greater honor to have a Lilaceous plant
bear his name;" knowing his wish, and feeling
greatly in his debt, for his ^{kind} ~~great~~ help in

in what little botanical work I have
been able to do, is my apology for troubling you
in this way,

If you think proper, to dedicate the
plant to me, I shall deem it a great
honor, and a mark of your good will
toward me,

I send you, what I take to be a
Eupatorium, that I do not think I have
had before. If it is a form of *E. occidentale*
it is very peculiar,

Yours Sincerely
R. H. Austin

Prattville Lab.

Aug 12, 1885

Dear General Mr. W. T. Stone
I send you the flowers
I have picked up this season
that are new to me, and
hope that they may be
interesting to you. I have
marked tonight letters on the
labels, marking my own
specimens the Garden and
send you extra labels to
write the names on for
me.

The Sambucus and
Cardamine were sent
before you gave it as
S. glauca. Is it? The
fruit looks so different
I sent only flowers before

415.73
555
424.25
5462.18

your desired fruiting
Specimens of *Leontodon*
(*Le. pallidifolius*)

I can make out the
order and genera of
all the others, but these
one, must be a Section
or closely allied to that
genera. It was collected
near the snow
line on Lassen Peak
Aug. 8. at an elevation
of 8,000 to 9,000 feet. It is a
pretty little plant
growing in masses on
the sunny side of
rocks, where there is
some low-lying kept moist
by the melting snow.

All the other plants
with the exception of
X. were gathered on

and around Lassen
Peak.

This one is from the
hills near Round Valley
Plumas Co.
b. looks so different from
the others, I am not sure
I don't think it is a *Leontodon*
- thinking you can put
help. I should

Yours sincerely
Chas. S. Foster

27 février 1889.

Monsieur,

Mr. W. Barbey me charge de vous présenter
ses compliments & ses remerciements pour
le nouveau travail que vous avez eu la bonté
de lui envoyer.

Ci-contre, j'ai dressé une petite liste
des publications de Mr. Barbey; veuillez avoir
l'obligeance de me noter ce que vous
possédez déjà & ce qui vous serait agréable
de recevoir.

Je vous prie d'agréer, Monsieur,
l'expression de mes sentiments distingués

Eug. Aubert

a'
Monsieur Charles Watson

HERBIER BOISSIER
CHAMBÉSY
PRÈS GENEVE.

9 avril 1889.

Monsieur,

Je vous remercie de votre lettre du 15 mars
et je me fais un plaisir de vous adresser,
par le même courrier, avec les compli-
ments de Mr. W. Barbey, les quelques
ouvrages que vous n'avez pas encore
dans votre bibliothèque.

Veuillez agréer, Monsieur, mes
très dévouées salutations

Eug. Aubran

c'

Monsieur Lorenzo Watson

15 janvier 1890.

Monsieur,

M. W. Barbey me charge de vous présenter
des compliments & de vous informer qu'il
désire offrir, comme don, à votre Herbier de
l'Université Harvard, une collection des plantes
que M. le Dr G. Schweinfurth a dernièrement
recueillies dans le Yémen.

Cette collection est déterminée par
M. Schweinfurth lui-même.

Veuillez avoir l'obligeance de me
faire savoir si votre Herbier désire accepter
l'offre de M. Barbey & si je puis vous
adresser déjà maintenant une première
partie de cette collection.

Veuillez croire, Monsieur, à mes
sentiments très distingués

Eug. Aubray

To
Søren Watson Esq.

20 février 1890

Monsieur,

J'envoie aujourd'hui à Berne la
caisse de plantes du Yemen.

M. W. Barbey me charge de vous
remercier vivement pour le "Gray's Manual",
qui lui a fait très plaisir, & de vous
dire qu'il est un peu laissé de côté par
les collectionneurs américains. Suksoef n'a jamais
rien envoyé & Palmer rien l'année dernière; il
n'y a que ~~Curtis~~ Pringel de fidèle. Les plantes
des Canada & de l'Amérique boréale nous
manquent aussi. Il est toujours amateur
des bonnes & sérieuses collections.

Veillez agréer, Monsieur,
l'expression de mes sentiments dévoués

Eug. Aubran

à
Monsieur Lorenzo Watson

12 juillet 1890.

Monsieur

M. W. Bachey m'a reçu dernièrement
une collection de M. Pingle qui l'a
vivement intéressé. Malheureusement,
il n'est jamais indiqué sur les étiquettes
américaines où se trouvent publiées les
nouvelles espèces. Pourriez-vous obtenir
ceci à l'avenir.

Les publications de votre pays ne
nous parviennent que difficilement;
nos libraires européens sont mal organisés
en général et les recherches bibliographiques
sont parfois laborieuses pour les plantes
américaines.

Veillez agréer, Monsieur, l'assurance
de mes sentiments très distingués

à
Monsieur Lorenzo Watson

Eug. Aubert

15 août 1890.

Monsieur,

Merci de votre aimable lettre du 26 juillet.

Voici ce que le Dr Schweinfurth m'écrit au sujet du *R. multifidus* Forst.

" *R. multifidus* Forst. non Turck =

R. Forstahlei DC. & très probablement

= *R. pennsylvanicus*, espèce très répandue dans les montagnes du Yémen, que j'ai collectionnée à plusieurs reprises. Cependant, certaines espèces abyssiniennes pouvant exister au Yémen, seraient à mettre en considération. L'identification avec l'herbier de Forstahl n'a pas été faite, ce Ran. ayant disparu.

Un de nos amis est près de terminer un travail très sérieux sur

Monsieur Lorenzo Watson

le genre *Polygala*. Je mets plus bas une liste
de quelques *Polyg.* qu'il n'a gué vu &
qu'il serait désireux d'étudier. Vous
serait-il possible de m'en remettre des
échantillons — soit à titre de prêt — soit à
titre de don en faveur de notre Herbar,
afin que ces espèces puissent être trouvées
à l'avenir dans un herbar en Europe.
Elles y font totalement défaut.

Veuillez agréer, Monsieur, l'assurance
de mes sentiments distingués.

Eug. Aubran

- ✓ *P. Hanthii* Gray
- ✓ *P. acanthocladus* Gray
- P. Pearcei* Watson
- ✓ *P. alba* v. *suspecta* Watson
- ✓ *P. viridis* Watson
- ✓ *P. Greggii* Watson
- ✓ *P. — ?* vide Watson Contrib. XIV. Palmer Mex. 1886.

Smith Nov. 15/90

19 décembre 1890.

Monsieur,

Je vous suis très obligé de votre aimable lettre et de votre envoi de *Polygala*; je me suis trompé: le *P. Scaricii* est de M. Bennett & non de vous; veuillez m'en excuser.

M. Schweinfurth est parti pour Massawa, je ne puis guère lui demander maintenant d'autres renseignements; mais, pour la présence douteuse de *P. Pennsylvanicus* Bunge, je vous prie de confronter: Defflers. Voyage au Yémen. Paris. 1889. p. 108.

Je vais expédier à la Chancellerie de Berne une caisse renfermant la suite des plantes du Yémen, du Dr Schweinfurth. M. W. Barbey se fait un plaisir de vous

2
Monsieur Lorenz Watson

Les offrir.

Veuillez croire, Monsieur, à
mes sentiments très dévoués

Eug. Autran.

22 juillet 1891.

Monsieur,

J'ai à répondre à deux lettres de vous
et à vous remercier beaucoup pour
l'intéressant envoi de plantes que vous
avez eu l'obligeance de m'adresser et
qui a trouvé bonne place dans
l'herb. Boiss.

Le n° 1712, Euphorbes de Schweinfurth
Yemen est aussi sans nom dans notre
collection. Vous recevrez du reste plus tard
un exemplaire du travail de M. Schweinfurth
sur les plantes du Yemen.

Dernièrement, en classant les Cuscuta
nouvellement arrivés, je trouve :

à

Monsieur Sereno Watson

Acet. 1891

22 août 1891,

Cher Monsieur,

Je vous remercie beaucoup de votre aimable lettre du 6 août, & de toute la peine que vous avez prise à me répondre au sujet des Cuscuta.

Mes meilleurs remerciements également pour les 2 brochures envoyées, qui nous sont fort précieuses.

J'ai eu dernièrement la visite de M. & M^e Britton de N.Y. & j'espère que j'aurai aussi une fois le plaisir de vous voir.

Croyez-moi, cher Monsieur, votre
Bien dévoué

Eug. Aubran

Monsieur L. Watson

1^o Esic. Jones. Flora of New Mexico. 1884. n^o 4116.

" " Utah. 1880. n^o 1914

= *buscuta curta* Engelm.

Je ne trouve nulle part ce nom mentionné.

2^o Esic. Parry. Utah. 1874 n^o 205 est sans
détermination; en auriez-vous le nom?
C. prostrata Engelm.

Avec mes remerciements anticipés,
veuillez croire, Monsieur, à mes sentiments
très dévoués
Eug. Aubran

1 juin 1894

Cher Monsieur,

Ayant été absent, pendant 8 jours pour cause de maladie, je vous prie de m'en excuser d'avoir autant tardé à répondre à votre lettre.

Votre *Coccoloba* me paraît bien devoir appartenir en effet au *C. Orizabae* Lindau, dont il ne diffère que par une nervation un peu plus dense de la feuille; mais la forme est du reste identique. Ceci dit à en juger sur des échantillons très imparfaits, aussi bien les vôtres que celui de l'Herb. Boiss. de Rouvbeau, qui est dans un misérable état.

Ce n'est pas en tout, car le *C. Jurgenseni* (comparé à l'Herb. Hellesvort), dont il diffère par son inflorescence, — soit par la forme des feuilles, oblongues-obtuses dans *C. Jurg.*

Toujours très heureux de pouvoir vous être agréable, croyez-moi, cher Monsieur,

Votre tout dévoué

Eug. Aubrey

57
Monsieur le Prof. Robinson